EN

tekno system
ACCESSORIES FOR CCTV

MULTIPROTOCOL KEYBOARD

TSK1 USER MANUAL

Before operating this unit, please read the instructions carefully to ensure the best possible performance.

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TSK1 Multi protocol Keyboard User Manual

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The manufacturer shall not be held responsible for any damages arising from improper use of the appliance described in this manual. Changes may be made to this manual without notice.

Safety Rules

Before installing and using this product carefully read this manual and observe the following recommendations.

❶ The product complies with the regulations in force at the time this manual was issued concerning safety of electrical appliances, electromagnetic compatibility and general requirements.
❷ The unit must be installed by a qualified technician.
❸ The unit must be connected to a mains power supply that corresponds with the characteristics given in the Technical Specifications section.
❹ The product is designed for indoor applications and must not be installed outdoor or exposed to rain or moisture.
❺ Disconnect the power supply before carrying out any technical work or maintenance on the unit.
❻ Never open the unit. Tampering with the product shall invalidate the warranty.
❼ The unit should never be used in proximity to flammable substances or in potentially explosive atmospheres.
❽ The unit must be leant on a solid support.
❾ The unit may only be considered shutdown when the power cable and any cables connecting the unit to other appliances have been disconnected.
❿ All technical assistance must be provided solely by authorised technicians
⓫ Keep this manual with care for future reference.

The product and/or manual may use the following symbols:

This symbol indicates that there are hazardous voltages, presenting a risk of electric shock, in the unit.

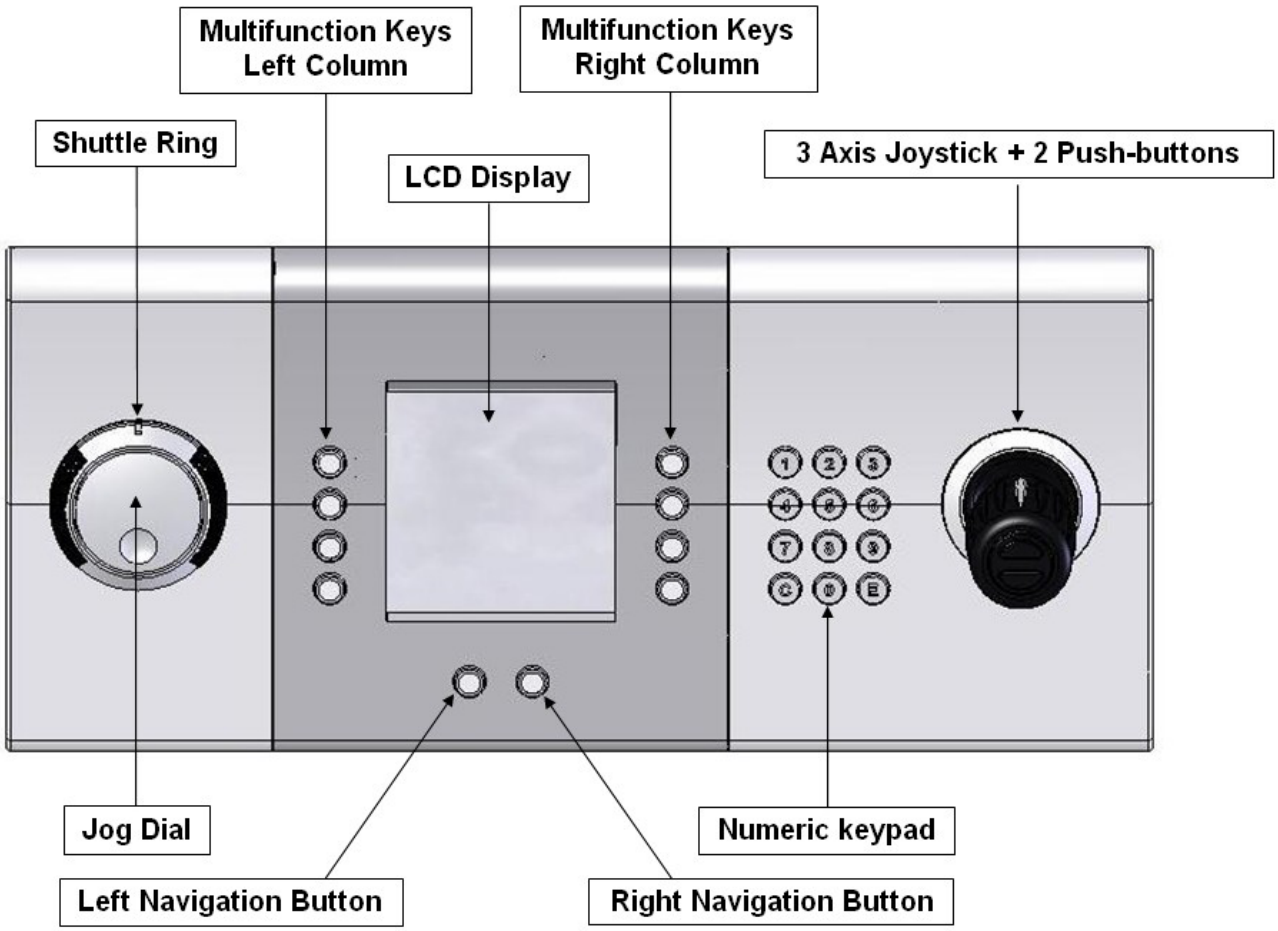
This symbol indicates essential information for the installation, use and maintenance of the unit; particular attention should be paid when reading and carrying out these instructions.

Contents of the package

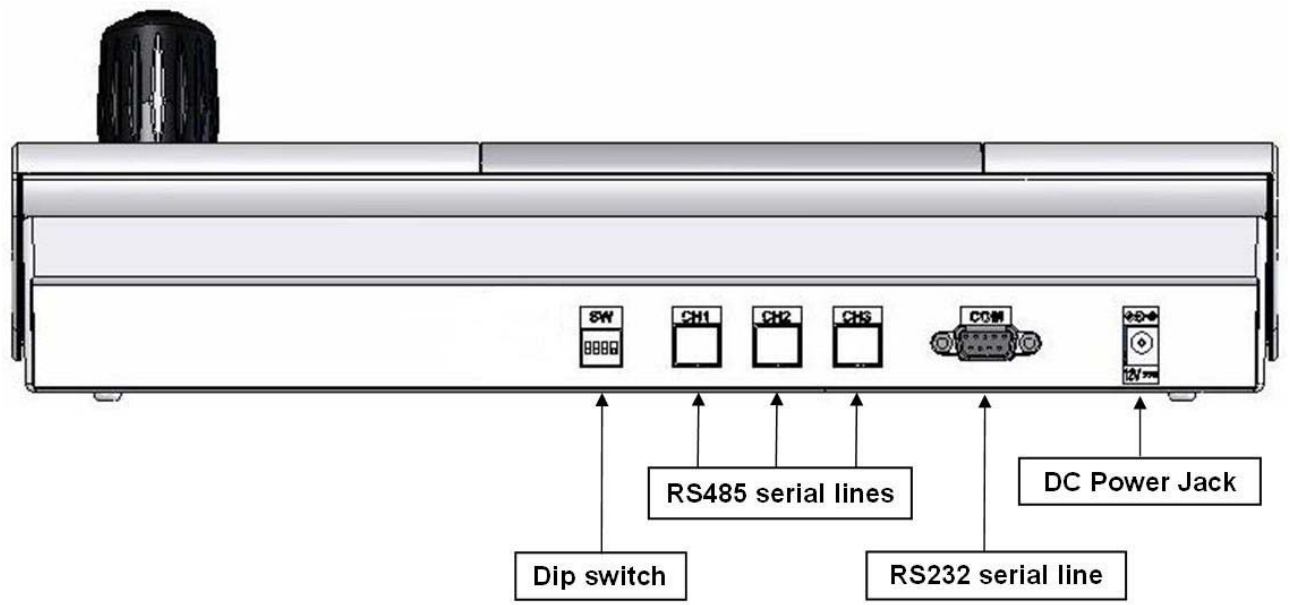
When the product is delivered, make sure the package is intact and has no obvious signs of dropping scrapes or scratches. If the package is damaged contact the supplier immediately.

❶ TSK1 Keyboard
❷ Power Supply Unit
❸ Power Supply Cord
❹ Phone Cables RJ12 6P/6C PLUG-PLUG Inverted Wiring 1.5m (3 pcs)
❺ Phone wall block terminals RJ12 6P/6C (3 pcs)
❻ RS232 Serial Cable (Mouse Extender Cable)
❼ CDROM
❽ User Manual

Keyboard top view



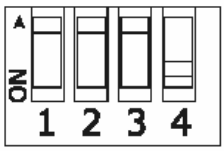
Keyboard rear view



Installing the keyboard

Dip switch setup

In the rear panel of the keyboard you find a 4 dip-switches (SW) used to insert/remove the load of the RS485 lines and lock the keyboard programming from the PC (see Figure 1).



DIP1: load on CH1 RS485 line	ON: load inserted OFF: load removed
DIP2: load on CH2 RS485 line	ON: load inserted OFF: load removed
DIP3: load on CH3 RS485 line	ON: load inserted OFF: load removed
DIP4: firmware upgrade lock	ON: firmware upgrade unlocked OFF: firmware upgrade locked

Figure 1

Move the load switch in **ON** position only for the devices connected at the RS485 line ends.
All others devices connected to the RS485 line must have the load switch in **OFF** position (see the Figure 2 scheme)

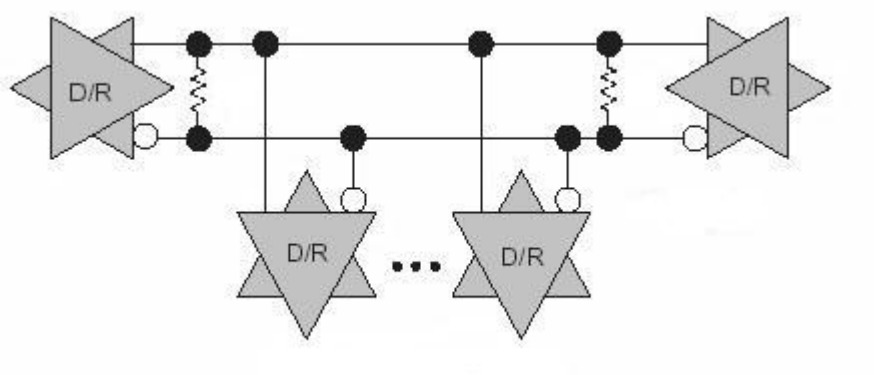


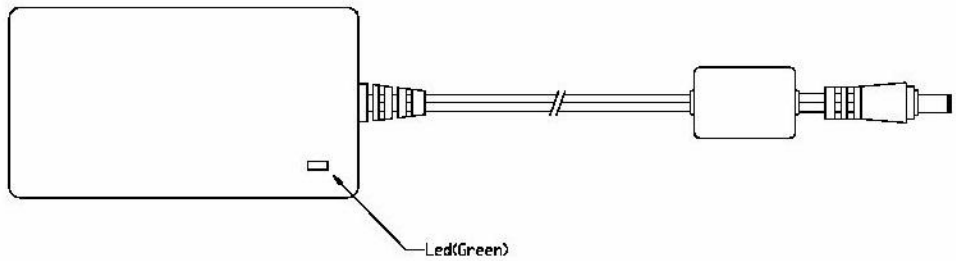
Figure 2

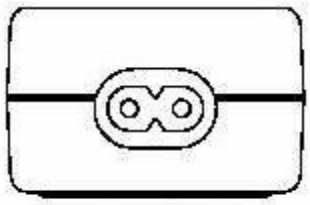
Move DIP4 in ON position only for the firmware upgrade operations. During the normal use the DIP4 must be in OFF position .

Power supply connection

Before connecting the power supply make sure the specifications for the keyboard power supply correspond to those for the system power supply.
To supply the keyboard it is essential to use the power supply unit and cord provided with the keyboard itself.
Using inappropriate and/or different equipment could expose personnel and the system to serious safety hazards.

Procedure for power supply connection:
❶ Connect the power plug to the DC power jack in the rear of the keyboard.
❷ Connect the power supply cord to the power supply unit
❸ Connect the power supply cord plug to the wall outlet.
❹ The green LED on the power supply unit light on
❺ The keyboard LCD display lights on and shows an image; this means that the keyboard has been installed correctly.





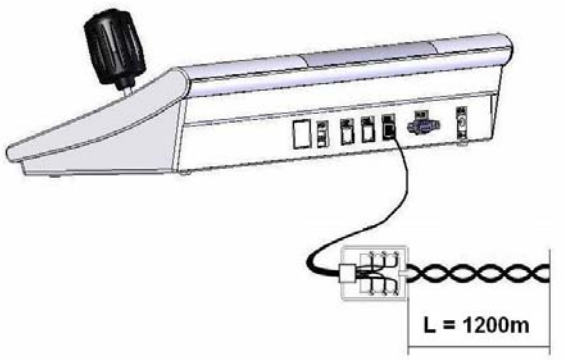
Power supply unit jack

In order to save power and increase the LED lifetime, the display backlit switch off automatically after 5 minutes of inactivity. Simply moving the joystick or the jog-shuttle or pressing any key you will exit from the power saving mode.

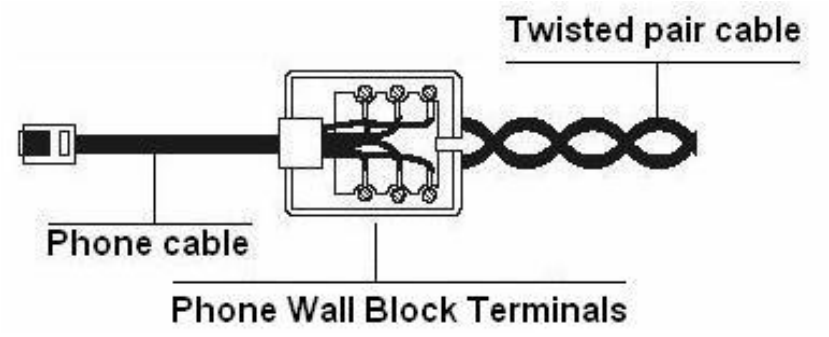
Communications lines and connections

RS485 Serial line connectors

The connection between the keyboard and the various controlled devices is made using three RS485 half duplex serial channels via CH1-CH2-CH3 serial ports.
If the controlled device doesn't have an RS485 serial port it will be necessary to insert a signal converter (for example RS485-RS232 or RS485-Current Loop) between the keyboard and the device itself. We remember you that the RS485 maximum distance without repeater is almost 1200m (4000ft).



Procedure for RS485 line connection:
❶ Connect the phone cable (supplied) to the desired RJ12 connector in the keyboard rear.
❷ Connect the other end of the phone cable (supplied) to the phone wall block terminals(supplied)
❸ Connect the RS485 line twisted pair cable to the phone wall block terminals following the Figure 3 scheme
❹ Connect the RS485 twisted pair cable end to the RS485 block terminals of the device (following the device instruction manual)

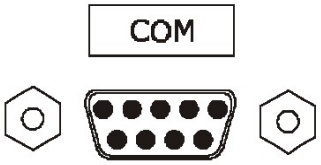


TSK1 Keyboard	Phone Wall Block Terminal
TX/RX + **(Half Duplex RS485 Non Inverting)**	**White**
TX/RX - **(Half Duplex RS485 Inverting)**	**Yellow**

Figure 3

RS232 Serial line connector

The CH2 can be also used to send/receive commands via RS232 serial port (COM connector).
Use the Figure 4 to connect the keyboard with your device.



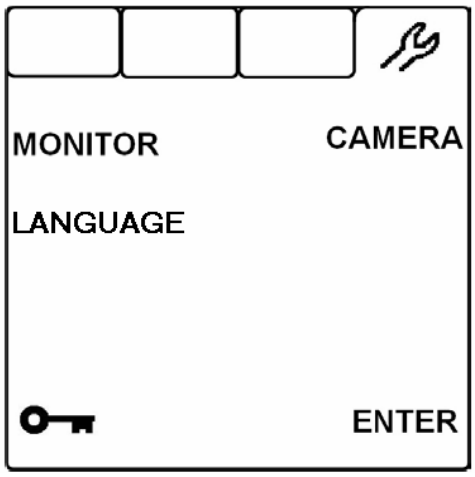
Pin	Signal	Function
1	-	-
2	TX	Transmitted data
3	RX	Received data
4	DTR	Data Terminal Ready
5	GND	Ground
6	-	-
7	RTS	Request To Send
8	-	-
9	-	-

Figure 4

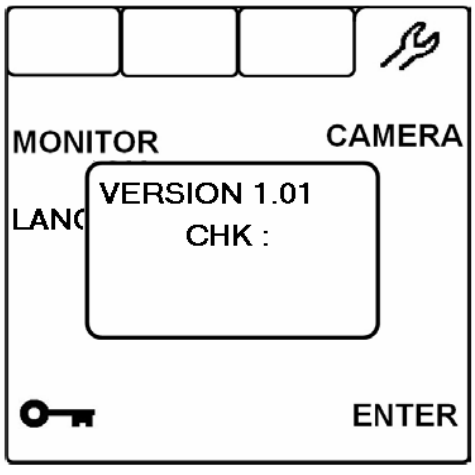
Firmware Version

This manual is referred at the firmware version 1.01.
To verify the firmware version installed in your keyboard follow this procedure.

Use the Ⓔ or Ⓒ keys from the keypad to select the keyboard configuration main menu.



Press at the same time the "**LEFT NAVIGATION BUTTON**" and the "**RIGHT NAVIGATION BUTTON**"; the firmware version information window will appear (also the firmware checksum is showed).

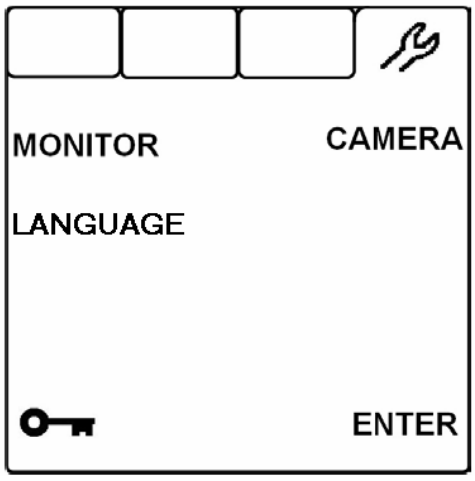


Press Ⓒ to exit .

Configuring the keyboard

Some special functions are configurable only by using the "Keyboard Configuration Program" that you can find in the CDROM included in the package.

Use the Ⓔ or Ⓒ keys from the keypad to select the keyboard configuration main menu.



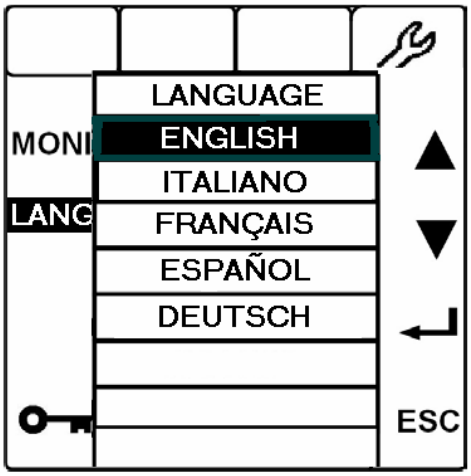
Language

Is it possible to select the keyboard language in a five choice list:

- ENGLISH
- ITALIANO
- FRANÇAIS
- ESPAÑOL
- DEUTSCH

By using the “Keyboard configuration program” will be possible to add an extra custom language.
See the “Keyboard configuration program” user manual for detail.

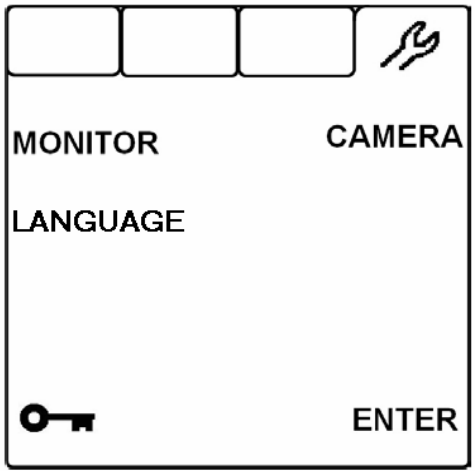
From the keyboard configuration main menu press “**LANGUAGE**” and the languages choice list will appear:



Use “▲” or “▼” or the joystick to move the cursor between the languages list.
Select the right language.
Press “↵” when done.
Press “**ESC**” if you want to exit from this menu.

Password

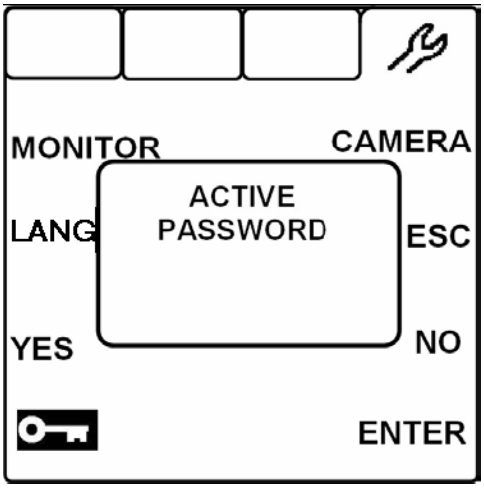
Use the Ⓔ or Ⓒ keys from the keypad to select the keyboard configuration main menu.



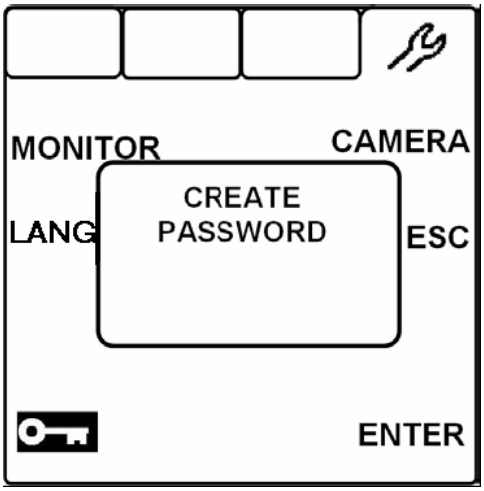
Keyboard security is managed by three password levels:
❶ **Connection password**: requested when the keyboard is switched on; it is used to prevent improper use of the keyboard by unauthorised personnel.
Is it possible to configure this password only by using the “Keyboard Configuration Program”.
❷ **Setup password**: requested to manage the configuration of the keyboard.
Is it possible to configure this password directly by the keyboard or by using the “Keyboard Configuration Program”.
❸ **Reset alarm password**: requested when an alarm has to be cleared.
Is it possible to configure this password only by using the “Keyboard Configuration Program”.

Passwords are defined at the individual keyboard level.
They can be disabled (default status, when leaving the factory). >>

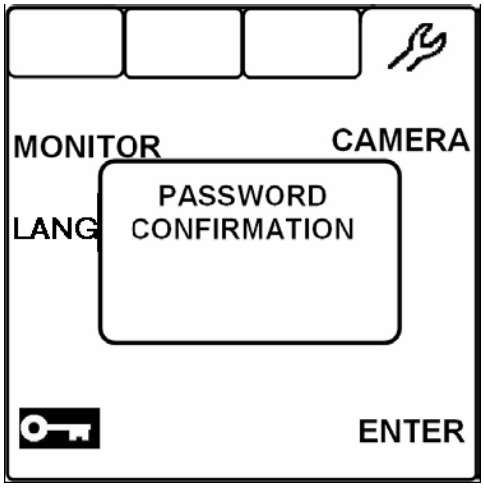
Press to enter in the setup password configuration menu.



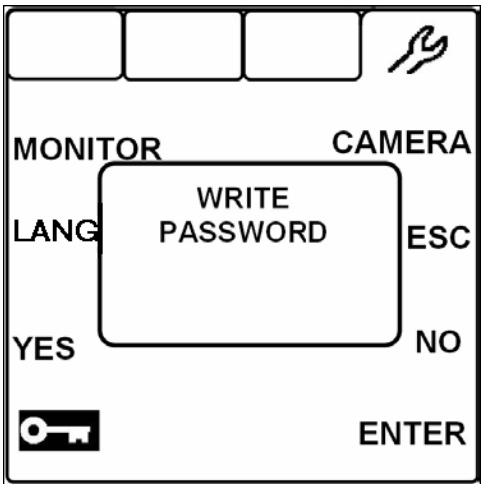
Press “**ESC**” if you want to exit from this menu.
Press “**NO**” if you want to disable the password.
Press “**YES**” if you want to active or modify the setup password; the following menu will appear:



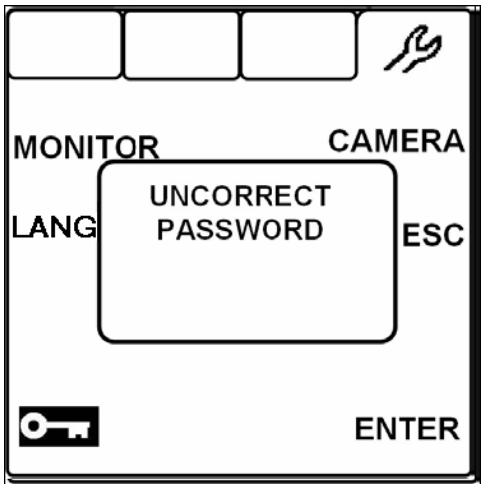
Enter the four (4) digits password from the numeric keypad and press Ⓔ or “**ENTER**” to confirm or Ⓒ to clear or “**ESC**” to exit and disable password.
The password confirmation window will appear for few seconds. >>



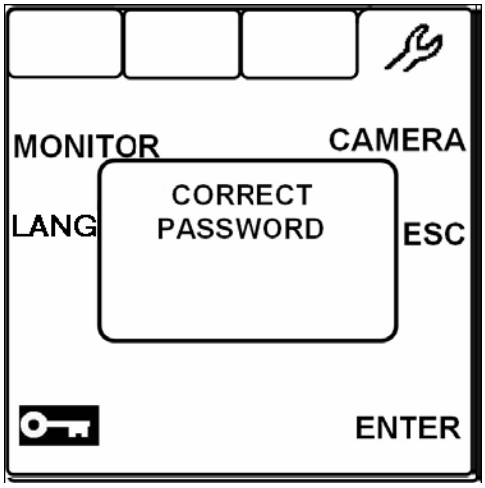
Now the setup password is active and the password request window will appear when you try to enter in the configuration menu:



Enter the four digits password by using the numeric keypad (four asterisks will appear) and press Ⓔ or "**ENTER**" to confirm or Ⓒ to clear or "**ESC**" to exit.
If a wrong password is entered a warning window will appear:



If the right password is entered a confirmation window will appear:

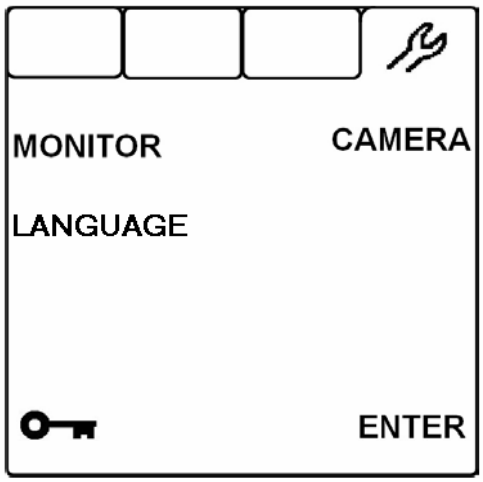


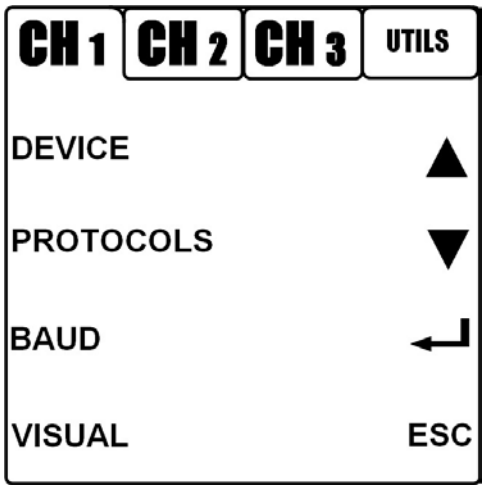
Now you can enter in the keyboard configuration menu.

Serial channels setup

Devices selection

Before to use the keyboard is necessary to configure the system layout.
The first step to do this is to configure the devices connected at the three serial lines of the keyboard.
From the keyboard configuration main menu press “**ENTER**” to move in the serial channels menu. >>

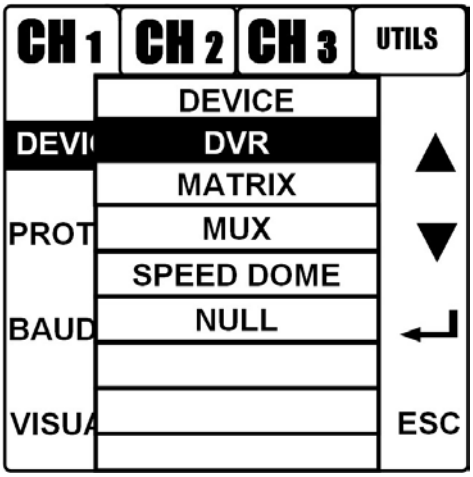




Use the Ⓔ key or the Ⓒ key to move right or left the active serial channel. Select the serial channel that you want to configure.

Press “**DEVICE**” to activate the device selection list.

Use “▲” or “▼” or the joystick to move the cursor between the device list.
Select the right device.
Select “NULL” if you don’t have any device connected to this serial channel.
Press ↵ when done.
For example select “SPEED DOME”.



It’s not possible to mix different kind of devices in the same serial line, also if there are products of the same manufacturer or with the same protocol.
Every single serial line must be associated at only one kind of device.

The serial channel label symbol change when you select a device according with this symbols:

SPEED DOME

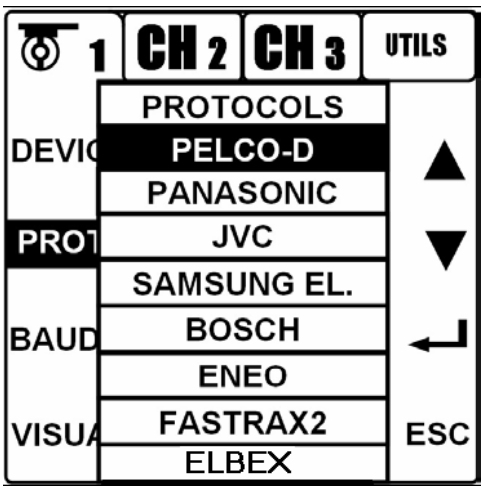
DVR

MATRIX

MUX MUX

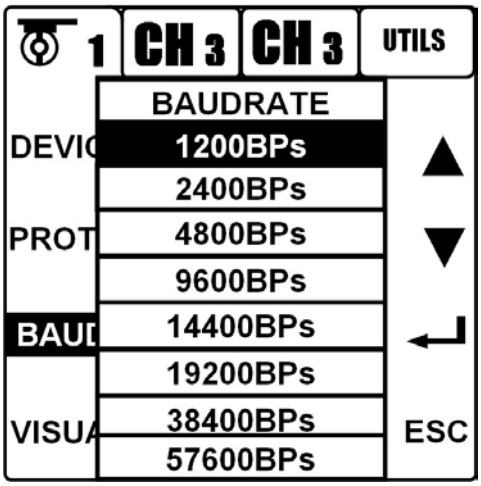
Protocols selection

Press “**PROTOCOLS**” to activate the protocols selection list.
Use “▲” or “▼” or the joystick to move the cursor between the device list.
Select the right protocol.
Press ↵ when done.
For example select “PELCO-D”.



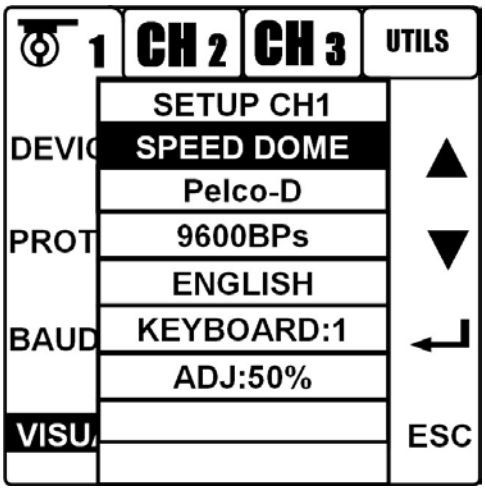
Baudrate selection

Press “**BAUD**” to activate the baud rate selection list.
Use “▲” or “▼” or the joystick to move the cursor between the device list.
Select the right baud rate.
Press ↵ when done.
For example select “9600BPs”.



Configuration verify

Press “**VISUAL**” to show the configuration report for this serial channel.
Press “**ESC**” to come back when done.

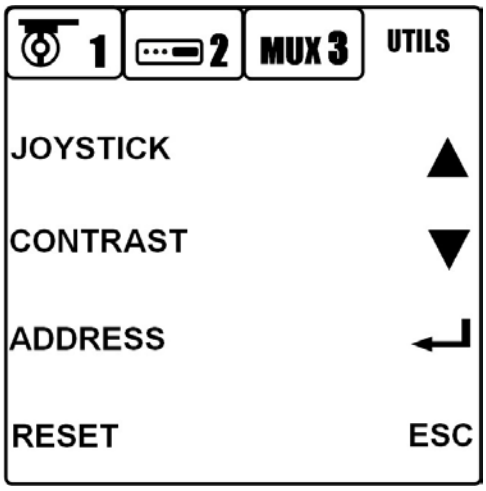


Keyboard address and contrast adjustment are described in the UTILS menu. The language setup is possible only with the “Keyboard Configuration Program”.

Repeat the above sequence for all serial channels.
Press “ESC” when done to come back at the previous menu.

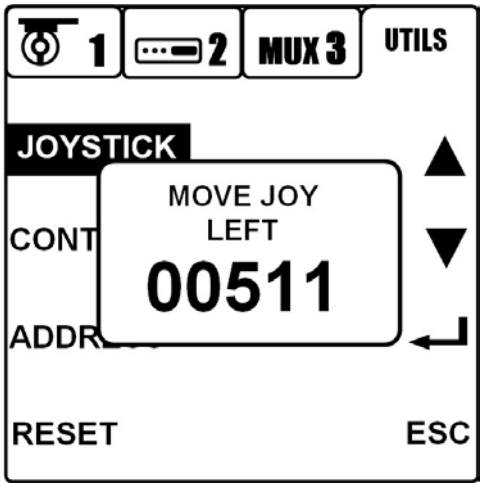
Utils Menu

Use the Ⓔ or Ⓒ keys from the keypad to select the “**UTILS**” menu.



Joystick

Joystick calibration is process which allows correct operation of the device. Normally it is only done at the production stage and recalibration by the operator should never be necessary. If the joystick behaves incorrectly (if, for example, a pan or tilt direction stays active when the joystick is at rest) it may be necessary to carry out the calibration procedure. Press “JOYSTICK” to move in the joystick calibration menu. The following menu will appear:



Press “**ESC**” if you want to exit without continuing with calibration.

Move the joystick left until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done.

Move the joystick right until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done.

Move the joystick down until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done. >>

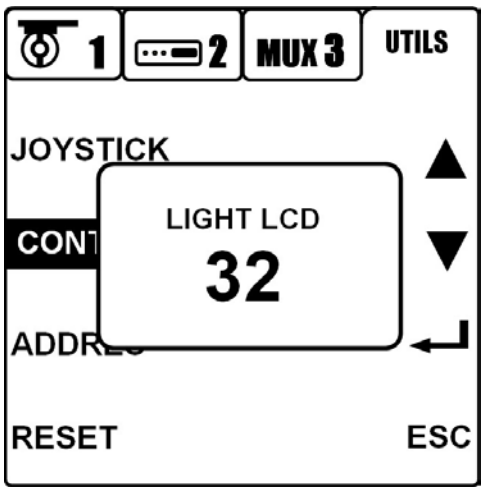
Move the joystick up until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done.

Move the joystick zoom axis clockwise until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done.

Move the joystick zoom axis counter clockwise until the number showed still fixed; press ↵ or one of the two push-buttons on top of the joystick when done.

Contrast

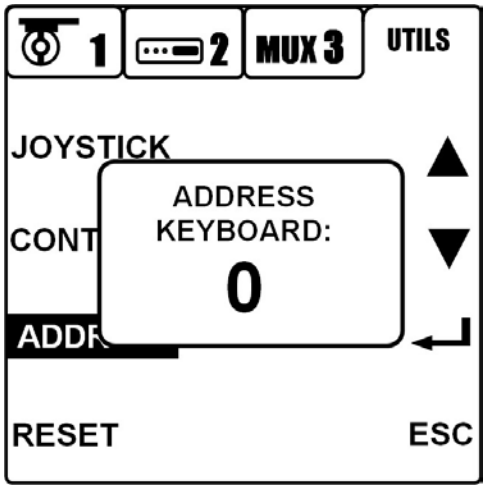
This menu allows to calibrate the contrast of the LCD display in the 64 steps (0-63).
Press "**CONTRAST**" to move in the the contrast calibration menu. The following menu will appear:



Use "▲" or "▼" or the joystick to increase/decrease the contrast value in the range 0-63.
Press ↵ to confirm and save the new contrast value or "**ESC**" to exit without save.

Address

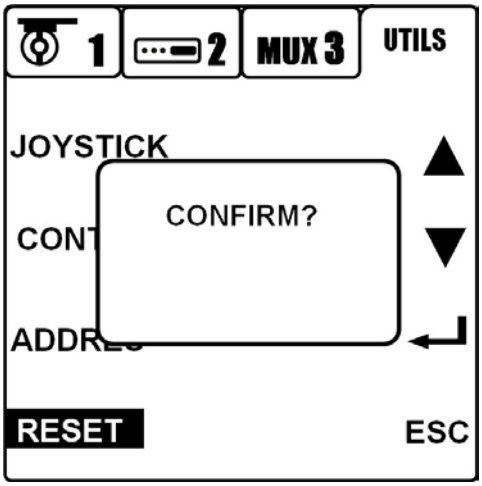
This menu allows to assign the system identification number of keyboard.
Each keyboard in the system should be identified by a different number; the presence of more than one keyboard with the same number could cause communication problems.
The keyboard address must be in the range 0-255.
Press "**ADDRESS**" to move in the the keyboard address menu. The following menu will appear:



Select the keyboard address (ex.: n.1) from the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.
If you enter a wrong data the window will appear again.

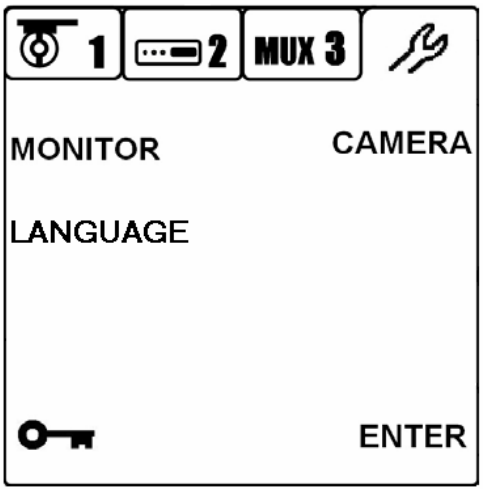
Reset

Resets factory default values. The reset operation should be confirmed by the operator.
Press ↵ to confirm or "**ESC**" to exit without reset the keyboard.

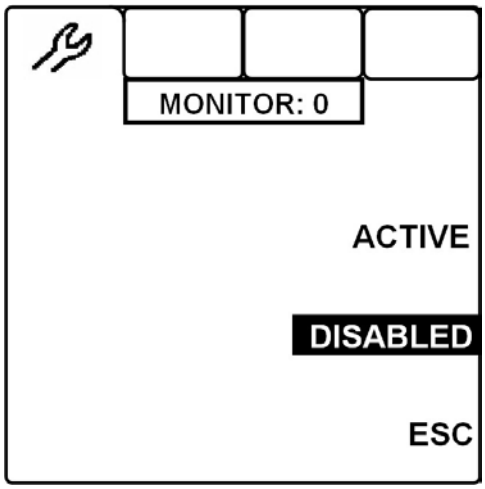


Monitor setup

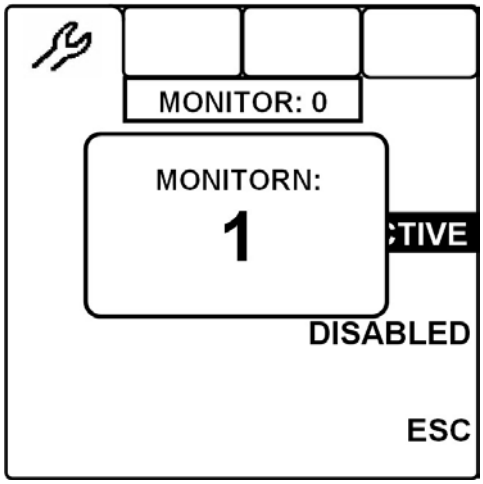
Whit this menu you can define the connected monitors list that you want to manage from this keyboard.



From the configuration menu press the “**MONITOR**” key; the following menu appear:



Select the monitor number (for example.: n.1) from the numeric keypad and press Ⓔ to confirm or Ⓒ to clear. >>

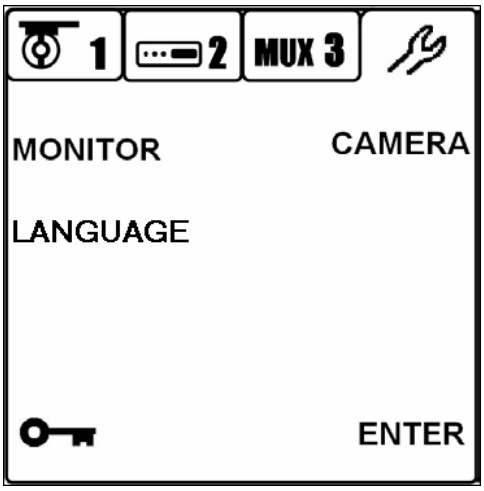


Press “**ACTIVE**” if you want to manage this monitor from the keyboard.
Press “**DISABLED**” if you doesn’t want to manage this monitor from the keyboard.

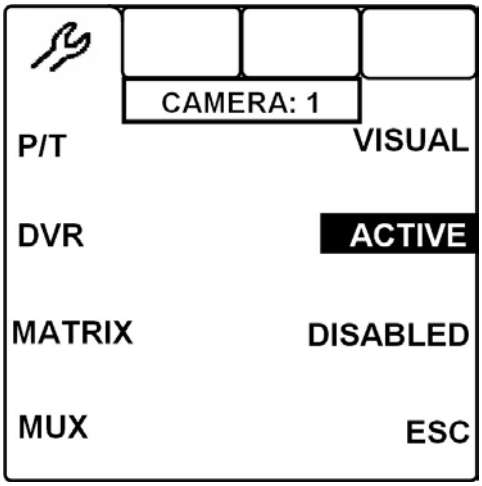
Repeat the above sequence for all monitors. Press “ESC” when done to come back at the previous menu

Camera setup

Whit this menu you can define how the cameras are connected with the system devices .



Press the "**CAMERA**" key; the following menu will appear:

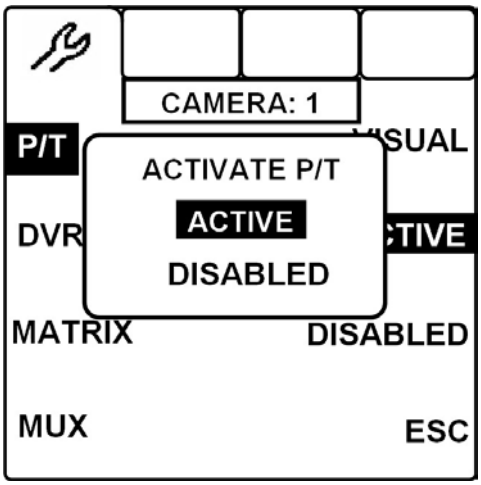


Select the camera number (ex.: n.1) from the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.
Press "**ACTIVE**" if you want to manage this camera from the keyboard.
Press "**DISABLED**" if you doesn't want to manage this camera from the keyboard.

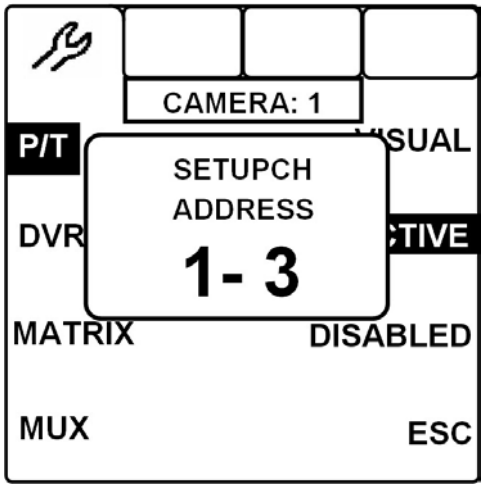
IF THE CAMERA IS DEFINED <u>DISABLED</u> THE "P/T", "DVR", "MATRIX", "MUX" KEYS ARE NOT ACTIVE.

P/T

If the camera is defined active and it's a speed dome or P&T unit and you want to manage the telemetry function from the keyboard press "**P/T**".
The "**ACTIVATE P/T**" window will appear; move the joystick until "**ACTIVE**" is highlighted and press Ⓔ from the numeric keypad.



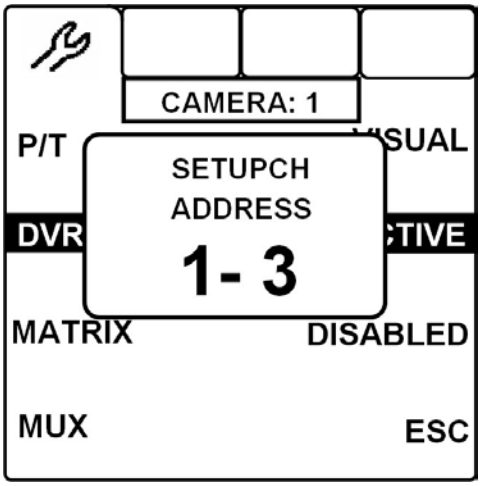
If more than one serial line is associated at SPEED DOME in the Serial channel setup, a window will appear to allows you to enter the serial channel number where the P/T is connected. Enter the number by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.
If you enter a wrong data the window will appear again.



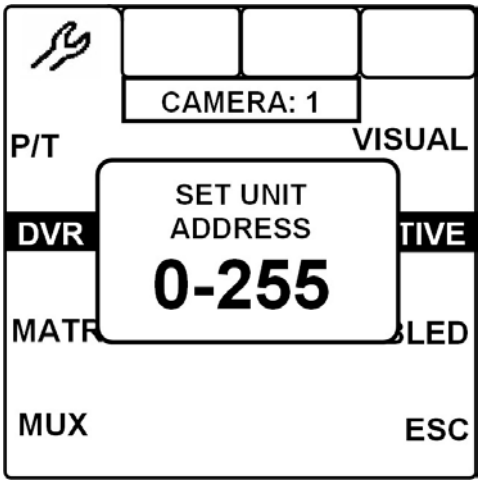
If the camera is defined active and is a speed dome or P&T unit but you doesn't want to manage the telemetry function from the keyboard press "**P/T**".
The "**ACTIVATE P/T**" window will appear; move the joystick until "**DISABLED**" is highlighted and press Ⓔ from the numeric keypad.

DVR
If the camera is defined active and connected at a DVR unit and you want to manage the DVR functions from the keyboard press “**DVR**”.

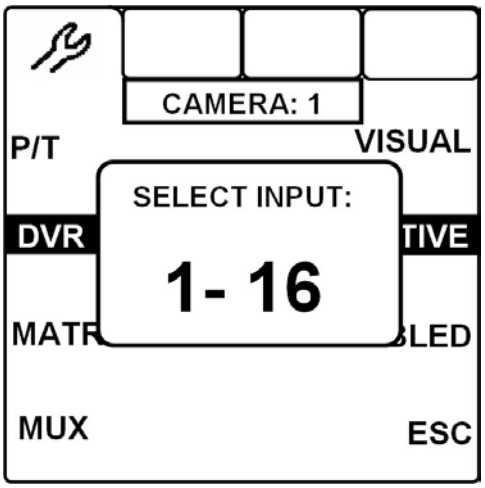
If more than one serial line is associated at DVR in the Serial channel setup, a window will appear to allows you to enter the serial channel number where the DVR is connected.
Enter the number by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.
If you enter a wrong data the window will appear again.



The “**SET UNIT ADDRESS**” window will appear; enter the DVR unit address by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear. >>



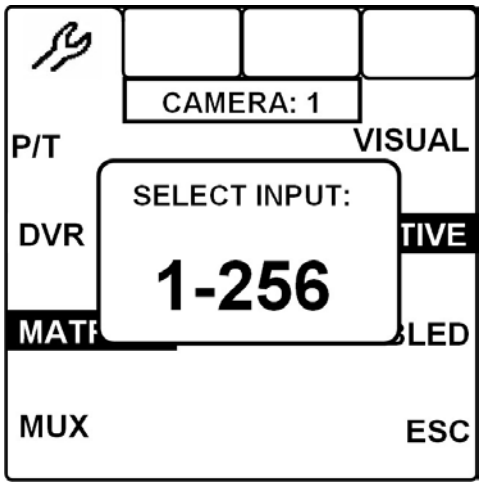
The “**SELECT INPUT”** window will appear:



Enter the video input number of the DVR where the camera is connected by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.

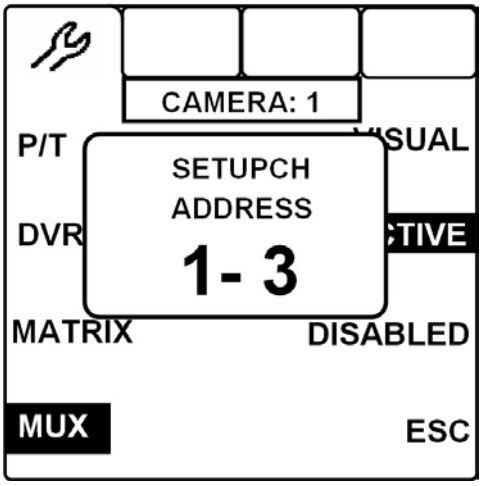
MATRIX
If the camera is defined active and connected at a video MATRIX unit and you want to manage the MATRIX functions from the keyboard press “**MATRIX**”.

The “**SELECT INPUT**” windows will appear; enter the MATRIX video input by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.

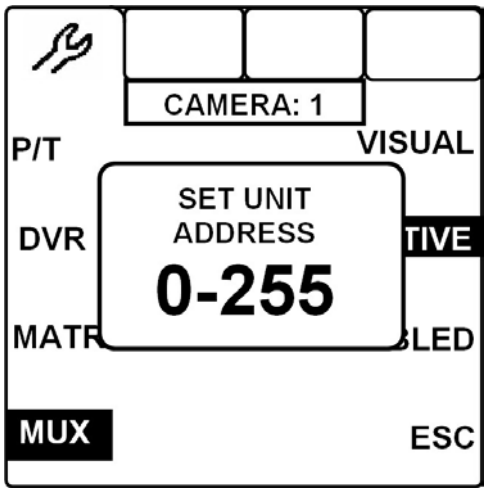


MULTIPLEXER
If the camera is defined active and connected at a video MULTIPLEXER unit and you want to manage the MULTIPLEXER functions from the keyboard press "**MUX**".

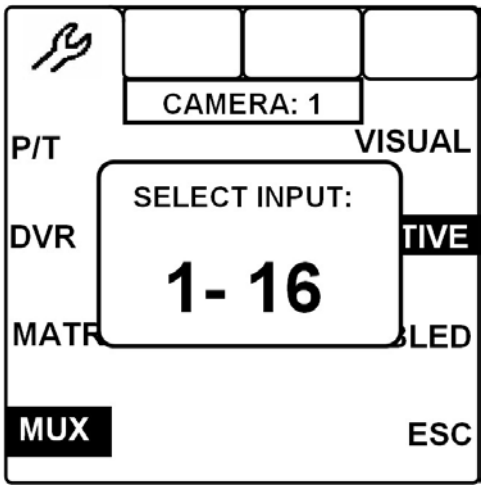
If more than one serial line is associated at MUX in the Serial channel setup, a window will appear to allows you to enter the serial channel number where the MUX is connected.
Enter the number by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.
If you enter a wrong data the window will appear again.



The "**SET UNIT ADDRESS**" window will appear; enter the MUX unit address by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear. >>



The “**SELECT INPUT”** window will appear:



Enter the video input number of the MUX where the camera is connected by using the numeric keypad and press Ⓔ to confirm or Ⓒ to clear.

Press ” **ESC**” when done to come back to the previous menu.

SPEED DOMES

PELCO

Reference Documents
Pelco D Protocol Version 2 Revision 1 August 15, 2003

Hardware Connection

Phone Wall Block Terminals	PELCO Dome
White	**RX +**
Yellow	**RX -**

Keyboard Configuration
Select the right serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → PELCO
BAUD → see the PELCO Dome User Manual

Command Menu
The LCD display show a 6 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/6

Command	Description	Parameter1	Parameter2
IRIS+	Iris Open	-	-
IRIS-	Iris Close	-	-
CAMERAON	Switch Camera ON	-	-
CAMERAOFF	Switch Camera OFF	-	-
SPRESET	Set Preset Position	1-32	-
CPRESET	Clear Preset Position	1-32	-
GPRESET	Go to Preset Position	1-32	-
FLIP180	Flip 180°	-	-

Command Page 2/6

Command	Description	Parameter1	Parameter2
GOTO0PAN	Goto Home Pan Position	-	-
SETAUX	Set Auxiliary	1-8	-
CLEARAUX	Clear Auxiliary	1-8	-
RESET	Remote Reset	-	-
ZONESTART	Set Start Zone	1-8	-
ZONEEND	Set End Zone	1-8	-
CSCREEN	Clear Screen	-	-
ALARMACK	Alarm Acknowledge	1-8	-

Command Page 3/6

Command	Description	Parameter1	Parameter2
ZONSCAN+	Zone Scan ON	-	-
ZONSCAN-	Zone Scan OFF	-	-
SETPSTART	Set Start Pattern	-	-
SETPSTOP	Set Stop Pattern	-	-
RUNPATT	Run Pattern	-	-
ZOOMSPPED	Zoom Speed	0-3	-
FOCUSSP	Focus Speed	0-3	-
RCAMERA	Reset Camera to Defaults	-	-

Command Page 4/6

Command	Description	Parameter1	Parameter2
AFOCUSA	Auto Focus AUTO	-	
AFOCUS+	Auto Focus ON	-	
AFOCUS-	Auto Focus OFF	-	
DELAYMOD	Enable Device Phase Delay Mode	-	
AIRISAUTO	Auto Iris AUTO	-	
AIRISON	Auto Iris ON	-	
AIRISOFF	Auto Iris OFF	-	
SHT-SPEED	Shutter Speed	0-255	0-255

Command Page 5/6

Command	Description	Parameter1	Parameter2
AGCAUTO	AGC AUTO	-	-
AGCON	AGC ON	-	-
AGCOFF	AGC OFF	-	-
LCKPHDLY	Adjust Line Lock Phase Delay	0-1	0-255
BCKON	Backlight Compensation ON	-	-
BCKOFF	Backlight Compensation OFF	-	-
AWBLCON	AUTO White Balance ON	-	-
AWBLCOFF	AUTO White Balance OFF	-	-

Command Page 6/6

Command	Description	Parameter1	Parameter2
W-BLC-R-B	Adjust White Balance (R-B)	0-1	0-255
W-BLC-M-G	Adjust White Balance (M-G)	0-1	0-255
ADJGAIN	Adjust Gain	0-1	0-255
IRISL	Adjust Auto Iris Level	0-1	0-255
IRISP	Adjust Auto Iris Peak value	0-1	0-255

PANASONIC

Reference Documents

Panasonic WV-CS950 Dome User Manual
PanasonicWV-CS850 Dome User Manual
Panasonic WV-CS960 Dome User Manual
Protocol Information WV-CS860 Panasonic V 3.1 July 2002

Hardware Connection

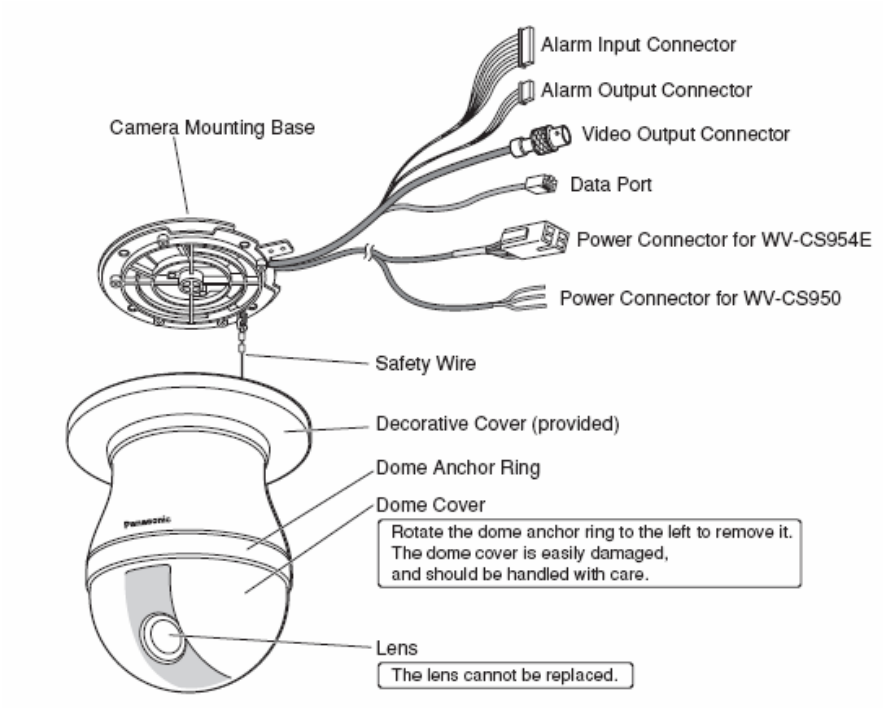
To connect the keyboard to the Speed Dome unit you must use two phone wall terminal blocks and one phone cable RJ12 6/6.

Connect the “Data Port” RJ connector to the phone wall terminal block ②.

Connect the phone wall terminal block ② to the phone wall terminal block ① by using two wires (see the following table).

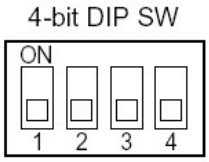
Phone Wall Block Terminals ①	Phone Wall Block Terminals ②
White	Green
Yellow	Yellow

Connect the desired serial line connector of the keyboard with the phone wall terminal block ① by using the phone cable RJ12 6/6.



RS485 Setting

The 4-bit DIP switch in used for RS485 termination and protocol selection.

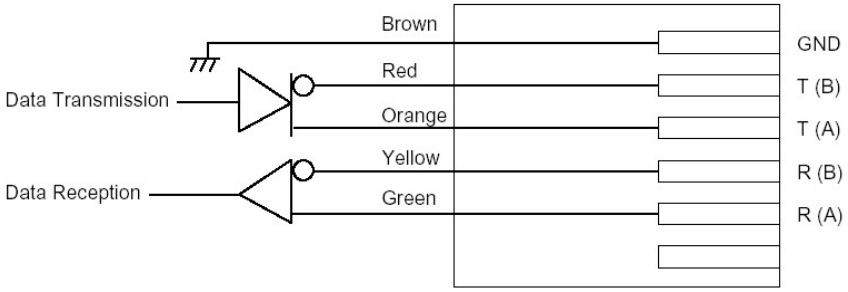


	BP 1	Function
Switch Position	ON	Termination ON
	OFF	Termination OFF *

	BP 2	BP 3	BP 4	Function
Switch Position	ON	ON	ON	Half Duplex (2 line)
	OFF	OFF	OFF	Full Duplex (4 line) *

Notes:

- Defaults are marked with *.
- BP stands for Bit Position.
- Daisy chain connection is not available for Full Duplex.



Keyboard Configuration

Select the right serial channel

Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → PANASONIC
BAUD → see the PANASONIC Dome User Manual

Command Menu

The LCD display show a 4 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels descried in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/4

Command	Description	Parameter
APANON	Auto Pan ON	-
APANOFF	Auto Pan OFF	-
APANI	Auto Pan Sweep Area Inverse	-
RESET	Reset	-
APANeOFF	Auto Pan Endless OFF	-
APANeON	Auto Pan Endless ON	-
FLIPON	Digital Flip ON	-
FLIPOFF	Digital Flip OFF	-

Command Page 2/4

Command	Description	Parameter
HOME	Go to Home Position	-
GPRESET	Go to Preset Position	0-64
SPRESET	Set Preset Position	0-64
180DT	180 Degree Turn	-
PATTSTART	Pattern Start	-
PATTSTOP	Pattern Stop	-
PATTSET	Pattern Set	-

Command Page 3/4

Command	Description	Parameter
MENUON	Set Menu ON	-
MENUOFF	Set Menu OFF	-
SET	Setup Menu SET1	-
ESC	Setup Menu SET2	-
IRIS+	Iris Open	-
IRIS-	Iris Close	-
ALCON	ALC ON	-
AFOCUS	One Shot Auto Focus ON	-

Command Page 4/4

Command	Description	Parameter
AL1OFF	Alarm 1 OFF	-
AL2OFF	Alarm 2 OFF	-
AL3OFF	Alarm 3 OFF	-
AL4OFF	Alarm 4 OFF	-
AUX1ON	Auxiliary 1 ON	-
AUX1OFF	Auxiliary 1 OFF	-
AUX2ON	Auxiliary 2 ON	-
AUX2OFF	Auxiliary 2 OFF	-

JVC

Reference Documents

JVC Dome TK-C655E, TK-C676E User Manual
JVC Protocol Version 1.02, April 2003

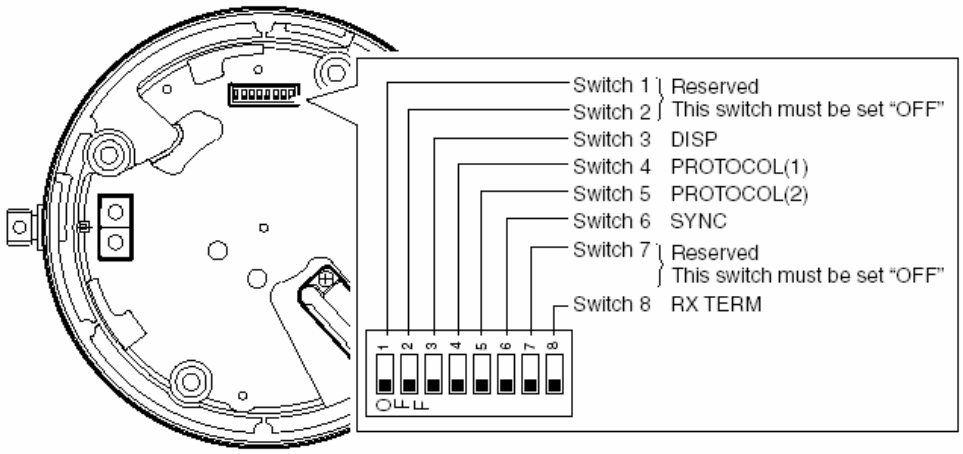
Hardware Connection

Phone Wall Block Terminals	JVC Dome
White	Ⓒ
Yellow	Ⓓ

[CONTROL] Terminals (CN22)

Pin No.	Signal Name	Mark
1	TX +	Ⓐ
2	TX –	Ⓑ
3	RX +	Ⓒ
4	RX –	Ⓓ

See the "Connections & Installation" section on the speed dome Instrucions Manual.



Be sure to set properly the Switch 4 (Multi drop or Point to Point connection)

PROTOCOL (1)	Switch 4
Point to point	OFF
Multi drop (when using the RM-P2580)	ON

Set **ON** the Switch 5 (Simplex)

PROTOCOL (2)	Switch 5
Duplex (when using the RM-P2580)	OFF
Simplex	ON

Be sure to set properly the Switch 8 (RX Termination)

RX Termination	Switch 8
Terminated (110 Ω)	ON
Open	OFF

Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → JVC
BAUD → 9600BPs

Command Menu

The LCD display show a 5 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/5

Command	Description	Parameter
HOMESET	Set Home Position	-
HOMECLR	Clear Home Position	-
HOMEGO	Go to Home Position	-
SPRESET	Set Preset Position	1-99
CPRESET	Clear Preset Position	1-99
GPRESET	Go to Preset Position	1-99

Command Page 2/5

Command	Description	Parameter
APANON	Auto Pan ON	-
APANOFF	Auto Pan OFF	-
APANSTART	Set Auto Pan Start Position	-
APANEND	Set Auto Pan End Position	-
APANDIR	Set Auto Pan Direction	-
APANVSET	Set Auto Pan Velocity	-
GOTOA-PS	Go to Auto Pan Start Position	-
GOTOA-PE	Go to Auto Pan End Position	-

Command Page 3/5

Command	Description	Parameter
PATSTART	Auto Patrol Pattern START	1-3
PATSTOP	Auto Patrol Pattern STOP	-
PATTSET	Auto Patrol Pattern Set	1-3
PATNSET	Auto Patrol Pattern Number Select	1-99
PATPOS	Auto Patrol Pattern Position	1-99
PATDWSET	Auto Patrol Pattern Dwell Set	-

Command Page 4/5

Command	Description	Parameter
AFLIPON	Auto Flip ON	-
AFLIPOFF	Auto Flip OFF	-
AFLIPAUTO	Auto Flip AUTO	-
ALARMACK	Alarm Display Set	-
MENU	Menu	-
MENU-ENT	Menu ENTER	-
IRIS+	Iris Open	-
IRIS-	Iris Close	-

Command Page 5/5

Command	Description	Parameter
AUX1ON	Auxiliary 1 ON	-
AUX2ON	Auxiliary 2 ON	-
AUX3ON	Auxiliary 3 ON	-
AUX1OFF	Auxiliary 1 OFF	-
AUX2OFF	Auxiliary 2 OFF	-
AUX3OFF	Auxiliary 3 OFF	-

SAMSUNG ELECTRONICS

Reference Documents
Samsung Dome VSCC-C6405P User Manual
Samsung Protocol Version 2.2, July 20, 2005

Hardware Connection

Phone Wall Block Terminals	SAMSUNG Dome
White	**RX +**
Yellow	**RX -**

Keyboard Configuration
Select the right serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → SAMSUNG
BAUD → see the SAMSUNG Dome User Manual

Command Menu
The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/3

Command	Description	Parameter
NUMBERKEY	Numeric Key	*
ZONSCAN+	Scan START	1-4
ZONSCAN-	Scan STOP	1-4
CAMERAON	Camera ON	-
MENUON	Menu ON	-
MENUOFF	Menu OFF	-
MENU-ENT	Menu ENTER	-
RESET	Factory Reset	-

* For the use of the Numeric Key refer to the Samsung User Manual

Command Page 2/3

Command	Description	Parameter
GPRESET	Go to Preset Position	0-127
SPRESET	Set Preset Position	0-127
CPRESET	Clear Preset Position	0-127
APANON	Auto Pan ON	-
APANOFF	Auto Pan OFF	-
PATTSTART	Pattern START	1-3
PATTSTOP	Pattern STOP	1-3
AFOCUS	Auto Focus	-

Command Page 3/3

Command	Description	Parameter
IRIS+	Iris Open	-
IRIS-	Iris Close	-

BOSCH

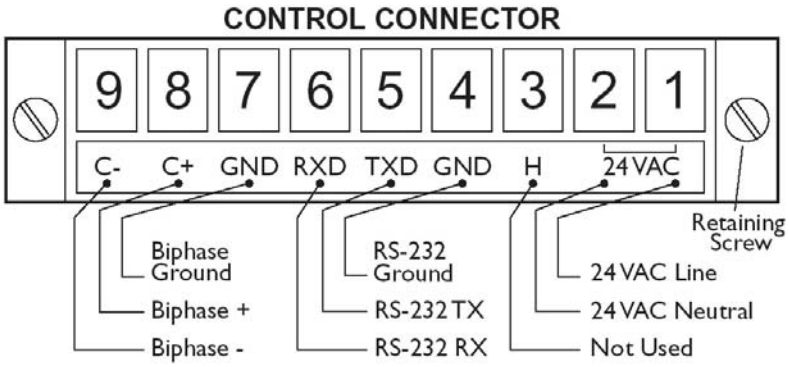
Reference Documents

Bosch BasicDome Series User Manual December 10, 2003
Bosch TC8560 Series - TC700 Series Application Note
Receiver/Driver and AutoDome Control Code Protocol TC8560 and TC700 series

Hardware Connection

To connect the Bosch dome with the keyboard is necessary to use the RS232 serial port. Connect a DB9 male connector (not supplied) to the the COM port and make a three wires connection with the dome following this scheme:

Keyboard RS232 COM Port	BOSCH Dome RS232 terminals
Pin 2 - TX	**Pin 6 - RS-232 RXD**
Pin3 - RX	**Pin 5 - RS-232 TXD**
Pin 5 - GND	**RS-232 Ground GND**



Remember that with the RS232 is not possible to make distances over 15-25 m. If you need a long distance connection you must use an external interface (ex. RS232-RS485 converter). Remember also that only the serial channel CH2 of the keyboard support the RS232 connection.

Keyboard Configuration

Select the CH2 serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → BOSCH
BAUD → see the BOSCH Dome User Manual

Command Menu

The LCD display show a 2 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/2

Command	Description	Parameter
AUXON	Auxiliary ON	*
AUXOFF	Auxiliary OFF	*
AUXTOG	AUX Toggle	*
SHOT	Pre Position SHOW	*
SET	Pre Position SET	*
IRIS+	Iris Open	-
IRIS-	Iris Close	-

Command Page 2/2

Command	Description	Parameter
AUXLTCH+	Latching AUX ON	*
AUXLTCH-	Latching AUX OFF	*
AUXLTCHC	Cancel Latching AUX	-
IRISB	Iris Brighter (Variable Speed Lens)	-
IRISD	Iris Darker (Variable Speed Lens)	-

(*) For the parameter values refer to the Figure 5 and Figure 6 extracted from the Bosch User manual.

BASICDOME USER COMMANDS
(Unlocked Commands)

	Commands	Keystrokes	Description
PTZ	Scan	ON/OFF-1-ENTER	Camera continuously pans in the last direction in which the joystick was moved. Moving the joystick stops the scan.
	AutoPan	ON/OFF-2-ENTER	Camera continuously pans back and forth between limits. Moving the joystick stops the scan.
PRESET	Preset Menu	SET-100-ENTER	Allows modification of Preset scenes from an on-screen menu (recommended).
	Preset Tour	ON/OFF-8-ENTER	Camera cycles through Preset Scenes. Moving the joystick stops the tour.
	Preset Tour Period	ON/OFF-15-ENTER	On-screen menu changes the length of waiting time between presets.
	Preset Save	SET-1-99-ENTER	Stores the current scene and camera settings in memory. Preset 1 is shown when camera is initialized.
	Preset Call	SHOT-1-99-ENTER	Recalls the scene and camera settings from memory.
	Edit Preset Title	ON/OFF-62-ENTER	Modifies the Preset names. On-screen instructions are provided.
	Edit Preset Tour	SET/SHOT-900-ENTER	Presets can be removed/restored (On/Off) from the Preset tour using an on-screen menu. Presets can still be displayed manually.
	Modify Preset Tour	SET/SHOT-901-999-ENTER	Presets can individually be removed/restored (On/Off) from the Preset tour. Example: [Set] [915] [Enter] will clear Preset 15 from the tour. Presets can still be displayed manually.
RECORD	Record A	ON/OFF-100-ENTER	Records "A" camera and PTZ controls that can be played back. Once the sequence is recorded, you must exit record in order to play back.
	Record B	ON/OFF-101-ENTER	Records "B" camera and PTZ controls that can be played back. Once the sequence is recorded you must exit record in order to play back.
	Continuous Playback A	ON/OFF-50-ENTER	Camera will repeat "A" recorded sequence.
	Playback A	ON/OFF-51-ENTER	Camera will play the "A" recorded sequence once.
	Continuous Playback B	ON/OFF-52-ENTER	Camera will repeat "B" recorded sequence.
	Playback B	ON/OFF-53-ENTER	Camera will play the "B" recorded sequence once.
SETUP	Image Stabilization	ON/OFF-24-ENTER	Camera attempts to filter out vibrations caused by wind and other environmental conditions.
	Scan+Auto Pan Speed	ON/OFF-14-ENTER	On-screen menu allows the setting of the AutoPan and AutoScan speeds. Default is 30 degrees/second.
	Backlight Compensation	ON/OFF-20-ENTER	Camera will adjust for a bright background.
	View Factory Settings	ON-47-ENTER	Displays the factory default settings.
	Software Version	ON-66-ENTER	Briefly displays the camera software versions.

Figure 5

BASICDOME ADVANCED COMMANDS

To use Locked Commands, you must first unlock the BasicDome via OFF-90-ENTER.
All locked settings, except *FastAddress*, can then be changed via ON-46-ENTER.
Disallow these commands via ON-90-ENTER.

	Commands	Keystrokes	Description
SETUP	FastAddress	ON-999-ENTER	Sets/changes the dome address using the keyboard and on-screen menus. (for cameras not already configured).
		ON-998-ENTER	Sets/changes the dome address using the keyboard and on-screen menus. (for all cameras, even those already configured).
	Display FastAddress	ON-997-ENTER	Briefly displays all dome addresses.
	Auto Iris	ON/OFF-3-ENTER	Camera (iris) adjusts automatically/manually (On/Off) to light conditions.
	Auto Focus	ON/OFF-4-ENTER	Camera automatically/manually (On/Off) focuses.
	Gain Control	ON/OFF-43-ENTER	Turns gain control to Automatic or Off. When in Automatic mode, the gain increases to compensate for darker scenes.
	On-screen Display	ON/OFF-60-ENTER	Turns On/Off the On-screen Display. When off, there is no On-screen feedback.
	On-screen Display Adjust	ON/OFF-61-ENTER	Changes the characters and position of the display. On-screen instructions are provided.
	Sector Title Edit	ON/OFF-63-ENTER	Edits the current Sector name. On-screen instructions are provided.
	Sector Blanking	ON-86-ENTER	Masks video from being displayed in selected sectors.
	Bypass All Blanking	OFF-86-ENTER	Removes all viewing restrictions imposed by sector blanking but keeps their locations in memory. ON-86-ENTER reactivates all blanking.
GENERAL	Lock/Unlock Commands	ON/OFF-90-ENTER	Allows/Disallows Locked Commands to be accessed.
	Password	SET-802-ENTER	Sets or displays password. See AutoDome Security, SECTION 4 for details.
	Factory Home Position	SET-110-ENTER	SET recalibrates camera and returns it to home position.
	Restore Defaults	ON-40-ENTER	Restores Factory Defaults.
PTZ	Left Limit	SET-101-ENTER	Sets the current position as the left limit of Auto Pan. Default is 0 degrees.
	Right Limit	SET-102-ENTER	Sets the current position as the right limit of Auto Pan. Default is 359.9 degrees.
	Inactivity	ON/OFF-9-ENTER	Selects the mode that the dome reverts to after a duration without operator activity. Default is OFF.
	Preset Tour Period	ON/OFF-15-ENTER	Increase/Decrease (On/Off) the time between Presets during Preset Tour.
	AutoPivot	ON/OFF-18-ENTER	Allows a subject to be followed while beneath the camera, without inverting the picture. Default is ON.
CAMERA	Select White Balance	ON/OFF-30-ENTER or ON/OFF-35-ENTER	Adjusts camera color (white balance) for specific settings.
	Sharpness	ON/OFF-44-ENTER	Picture (vertical aperture) sharpens/softens.
	Iris Adjust	ON/OFF-11-ENTER	Edits the Auto Iris level.
	Sync Mode	ON/OFF-42-ENTER	Sets camera sync for external-line/internal-crystal (On/Off).
	Adjust Line Lock Phase	ON/OFF-41-ENTER	Changes the phase delay of the camera when in external line lock mode.
	Switch Polarity	ON-91-ENTER	Switches the polarity of the Zoom, Focus, and Iris controls.

Figure 6

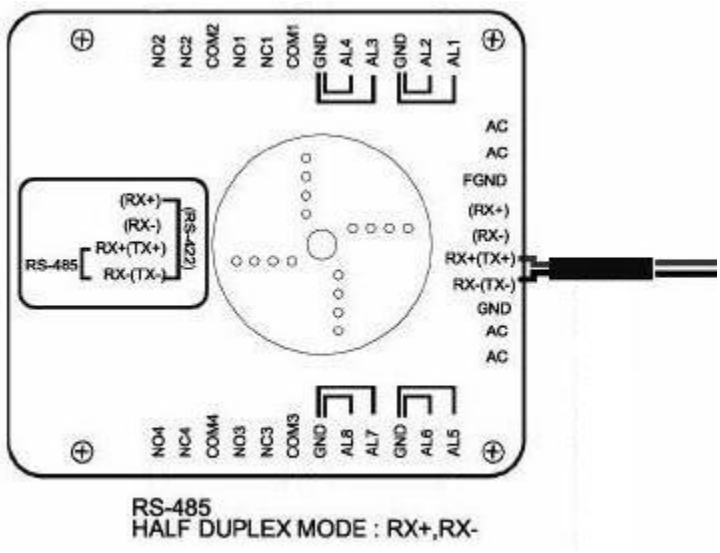
ENEO

Reference Documents

ENEO Dome VSCC-C6405P User Manual
ENEO Protocol Version 1.17

Hardware Connection

Phone Wall Block Terminals	ENEO Dome
White	**RX+ RS485 Half Duplex Mode**
Yellow	**RX- RS485 H Half Duplex Mode**



Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → ENEO
BAUD → see the ENEO Dome User Manual

Command Menu

The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/3

Command	Description	Parameter
RUNPATT	Run Pattern	1-255
PATTSAVE	Pattern Record	-
MENU-PT	Menu Pattern	-
HOMEGO	Run Home	-
AUTOSCAN	Run Autoscan	1-255
MENU-AS	Menu Autoscan	-
CTRL	Turbo ON/OFF	-

Command Page 2/3

Command	Description	Parameter
MENU	Dome Menu	-
ENTER	ENTER Command	-
ESC	ESC Command	-
MENU-AL	Alarm Menu	-
SPRESET	Set Preset Position	1-255
CPRESET	Clear Preset Position	1-255
GPRESET	Go to Preset Position	1-255
MENU-PS	Menu Preset	-

Command Page 3/3

Command	Description	Parameter
IRIS+	Iris Open	-
IRIS-	Iris Close	-
TOUR	Run Tour	1-255
MENU-TR	Menu tour	-
OFF	ON Command	1-255
ON	OFF Command	1-255

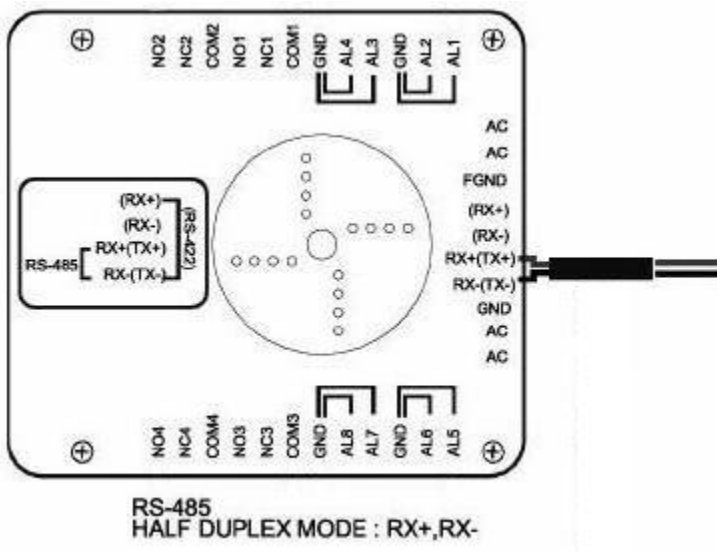
FASTRAX II

Reference Documents

Fastrax II Dome VSCC-C6405P User Manual
Fastrax II Protocol Version 1.17

Hardware Connection

Phone Wall Block Terminals	FASTRAX II Dome
White	**RX+ RS485 Half Duplex Mode**
Yellow	**RX- RS485 half Duplex Mode**



Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → SPEED DOME
PROTOCOL → FASTRAX II
BAUD → see the FASTRAX II Dome User Manual

Command Menu

The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Command Page 1/3

Command	Description	Parameter
RUNPATT	Run Pattern	1-255
PATTSAVE	Pattern Record	-
MENU-PT	Menu Pattern	-
HOMEGO	Run Home	-
AUTOSCAN	Run Autoscan	1-255
MENU-AS	Menu Autoscan	-
CTRL	Turbo ON/OFF	-

Command Page 2/3

Command	Description	Parameter
MENU	Dome Menu	-
ENTER	ENTER Command	-
ESC	ESC Command	
MENU-AL	Alarm Menu	
SPRESET	Set Preset Position	1-255
CPRESET	Clear Preset Position	1-255
GPRESET	Go to Preset Position	1-255
MENU-PS	Menu Preset	-

Command Page 3/3

Command	Description	Parameter
IRIS+	Iris Open	-
IRIS-	Iris Close	-
TOUR	Run Tour	1-255
MENU-TR	Menu tour	-
OFF	ON Command	1-255
ON	OFF Command	1-255

ELBEX EXC7000

Reference Documents

Camera ID Code Manual For Digital Camera Control (protocol description)
Command Manula For Digital Camera Control (protocol description)
EXC7000 Command Table1(command list)
Instant Dome Camera Manual Istructions (istructions installation instant dome)

The keyboard can control only the instant dome series EXC7000. Other series are not supported.

Hardware connection

Phone Wall Block Terminals	ELBEX Dome
White	RS422+
Yellow	RS422-

Keyboard configuration

Select the right serial channel Keyboard Setting:
DEVICE > SPEED DOME
PROTOCOL >ELBEX
BAUD > 4800 Bps (fixed for instant dome,see reference document)

Command Menu

The LCD display show a 5 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

Control that dip switch present on the dome are set in correspondence at camera number set on the keyboard.See manual instruction dome for details.

* Command IRIS+ and IRIS- not work on the dome with auto iris totally automatic. See manual instruction dome for details.

Command Page 1/5

Command	Description	Parameter
A PAN ON	Active function auto pan	-
A PAN OFF	Disable function auto pan	-
A PAN LEFT	Active function auto pan,anti-clockwise	-
A PAN RIGHT	Active function auto pan,clockwise	-
SCAN ON	Active function scansion preset positions	-
SCAN OFF	Disable function scansion preset positions	-
S PRESET	Define Preset Position	1-99
G PRESET	Go to the Preset Position	1-99

Command Page 2/5

Command	Description	Parameter
AL SCAN ON	Active function scansion alarm positions	-
AL SCAN OFF	Disable function scansione alarm positions	-
SET AL POS	Define Alarm Position	1-99
GO AL POS	Go to the Alarm Position	1-99
D ZOOM ON	Active zoom digital/automatic	-
D ZOOM OFF	Disable zoom digital/automatic	-
A FOCUS+	Active auto focus	-
A FOCUS-	Disable auto focus	-

Command Page 3/5

Command	Description	Parameter
A IRIS ON	Active iris digital/automatic	-
A IRIS OFF	Disabile iris digital/automatic	-
IRIS+	Iris Open*	-
IRIS-	Iris Close*	-
SHUTT.ON	Shutter on,active	-
SHUTT.OFF	Shutter off,disable	-
A SHUTTER	Active auto shutter	-

Command Page 4/5

Command	Description	Parameter
WIPER START	Active function wiper	-
WIPER STOP	Disable function wiper	-
S AL POS ALL	Set all Alarm Positions as actives in the scansion list of Alarm position	-
C AL POS	Clear the selected Alarm Position from the scansion list of Alarm position	1-99
MOVE AL POS	Set the Alarm position as active in the scansion list of Alarm position	1-99
LAST AL POS	Go to the last Alarm Position enabled, before start Alarm position scan	-
AL POS TIME	Setting the time of permanence on a singol Alarm position during scan	1-99
AL POS V	Setting the velocity of attainment for a singol Alarm position during scan	1-8

Command Page 5/5

Command	Description	Parameter
AUX ON	Active Auxiliary	1-8
AUX OFF	Disable Auxiliary	1-8
S ALL POS	Set all Preset Positions as actives in the scansion list of Preset position	-
CLEAR POS	Clear the selected Preset Position from the scansion list of Preset position	1-99
MOVE POS	Set the Preset position as active in the scansion list of Preset position	1-99
LAST POS	Go to the last Preset Position enabled, before start Preset position scan	-
POS TIME	Setting the time of permanence on a singol Preset position during scan	1-99
POS V	Setting the velocity of attainment for a singol Preset position during scan	1-8

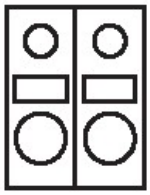
DIGITAL VIDEO RECORDERS

ENEO

Reference Documents
Eneo DVR DLR2-04N, DLR2-09N, DLR2-16N User Manual
Eneo DVR Protocol Ver. 1.5

Hardware Connection

Phone Wall Block Terminals	ENEO DVR
White	**RX+**
Yellow	**RX-**



RS-485 Connector

Keyboard Configuration
Select the right serial channel
Keyboard Setting: DEVICE → DVR
PROTOCOL → ENEO
BAUD → see the ENEO DVR User Manual

Command Menu
The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.
The factory menu command labels are copy of those presents in the DVR front panel; for the functions associated at this labels refer to the DVR User Manual.
The arrow buttons in the front panel are replaced by the joystick.
The only exceptions are for the MENU and CAMERA commands.

To enter in the configuration Menu of the DVR follow this procedure:
❶ Press the MENU-ENT key.
❷ A password request window will appear on the LCD display.
❸ Enter the four (4) digits password by using the numeric keypad.
❹ Press Ⓔ.
❺The DVR will enter in the configuration menu (see the video monitor).

If the DVR configuration on screen menu will request to press MENU or ENTER keys you must use the correspondent keys on the keyboard.
If a password is requested press the PASSWORD key on the keyboard and follow the above procedure from the ❸ point.

The CAMERA command recall a full screen image of the actual camera after a DISPLAY command.

Command Page 1/3

Command	Description	Parameter
PLAY	Playback	-
PAUSE	Pause	-
STOP	Stop	-
SEARCH	Search	-
FF	Fast Forward	-
RW	Rewind	-
REC	Record	-
SPOT	Spot	-

Command Page 2/3

Command	Description	Parameter
DISPLAY	Display	-
SEQ	Sequence	-
FREEZE	Freeze	-
COUNTER	Counter	-
CAMERA	Camera	-
ALARM	Alarm	-
PTZ	PTZ	-

Command Page 3/3

Command	Description	Parameter
MENU-ENT	Menu Enter Window	4 digits + Ⓔ
MENU	Menu	-
ENTER	Enter	-
PASSWORD	Password window	4 digits + Ⓔ

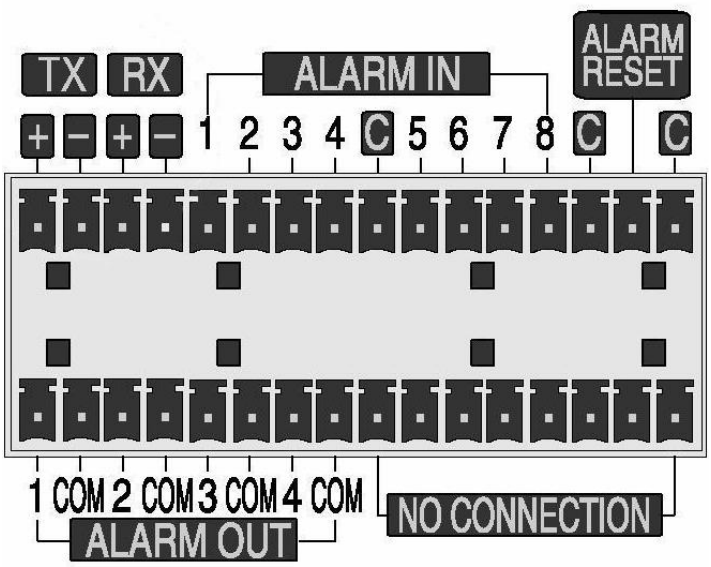
SAMSUNG ELECTRONICS

Reference Documents

Samsung Electronics DVR SHR2160-N User Manual
Samsung Electronics DVR Protocol Ver. 2.0

Hardware Connection

Phone Wall Block Terminals	SAMSUNG ELECTRONICS DVR
White	RX+
Yellow	RX-



Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → DVR
PROTOCOL → SAMSUNG EL.
BAUD → see the SAMSUNG EL. DVR User Manual

Command Menu

The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”. The factory menu command labels are copy of those presents in the DVR front panel; for the functions associated at this labels refer to the DVR User Manual.

Some advanced command are not present in the front panel; this commands are indicated with an asterisk in the Parameter column.
The arrow buttons in the front panel are replaced by the joystick.
The only exceptions are for the MENU and CAMERA commands.

To enter in the configuration Menu of the DVR follow this procedure:
❶ Press the MENU-ENT key.
❷ A password request window will appear on the LCD display.
❸ Enter the four (4) digits password by using the numeric keypad.
❹ Press Ⓔ.
❺The DVR will enter in the configuration menu (see the video monitor).

If the DVR configuration on screen menu will request to press MENU or ENTER keys you must use the correspondent keys on the keyboard.
If a password is requested press the PASSWORD key on the keyboard and follow the above procedure from the ❸ point.

The CAMERA command recall a full screen image of the actual camera after a DISPLAY command.

Command Page 1/3

Command	Description	Parameter
PLAY	Playback	-
STOP	Stop	-
SEARCH	Search	-
FF	Fast Forward	-
RW	Rewind	-
REC	Record	-
RECLOCK	Lock the REC key	-
FREEZE	Freeze	-

Command Page 2/3

Command	Description	Parameter
DISPLAY	Select Split Screen in DisplayMode	*
SEQ	Start Auto Sequence Mode	*
CAMERA	Recall Full Screen Selected Camera	-
ALARM	Recall Alarm Mode	-
EJECT	Eject	**
PANIC	Start Real Time Recording	-
MODE	Mode Key	-
EVENT	Event Search	*

(*) Key not present in the DVR front panel
(**) Only for DVR models with DVD recoder

Command Page 3/3

Command	Description	Parameter
AUDIO	Audio ON/OFF	-
ZOOMAREA	Active Digital Zoom	-
MENU-ENT	Menu Enter Window	4 digits + Ⓔ
MENU	Menu	-
ENTER	Enter	-
PASSWORD	Password window	4 digits + Ⓔ

PANASONIC

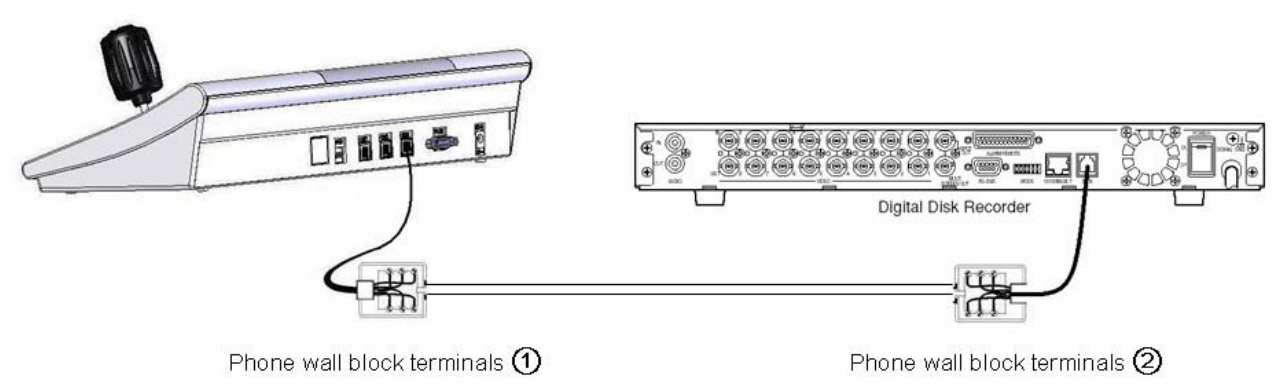
Reference Documents

Panasonic WJ-HD220/160 User Manual
Panasonic PS-DATA ver 1.0.1

Hardware Connection).

To connect the keyboard to the DVR unit you must use two phone wall teminals blocks and two phone cable R12 6/6 (see the following picture):

Phone Wall Block Terminals ①	Phone Wall Block Terminals ②
White	Green
Yellow	Yellow



Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → DVR
PROTOCOL → PANASONIC
BAUD → see the PANASONIC DVR User Manual

Command Menu

The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”. Some advanced commands are not present in the front panel; this commands are indicated with an asterisk in the Parameter column.
The arrow buttons in the front panel are replaced by the joystick.

The CAMERA command recall a full screen image of the actual camera after a DISPLAY command.

Command Page 1/3

Command	Description	Parameter
PLAY	Playback	-
PAUSE	Pause	-
STOP	Stop Playback	-
SEARCH	Time & Date Search	-
FF	Fast Forward to the End	-
RW	Rewind to the Top	-
REC	Record	-
STOPREC	Stop Recording	-

Command Page 2/3

Command	Description	Parameter
DISPLAY	Multiscreen Select	-
CAMERA	Recall Full Screen Selected Camera	
ALMRST	Reset Alarm	-
ALMSUS	Suspend Alarm	-
MULTI	Multiscreen/Spot Monitor selection	-
SEQ	Start Sequence	1-99
SEQSTOP	Stop Sequence	*

(*) Key not present in the DVR front panel

Command Page 3/3

Command	Description	Parameter
OSD-ON	Status Info Display ON	-
OSD-OFF	Status Info Display OFF	-
MENU	Menu	-
ENTER	Menu Enter	-
ESC	Menu ESC	-

HUNT

Reference Documents
Hunt HDR-08/16MS User Manual

Hardware Connection

Phone Wall Block Terminals	HUNT DVR
White	**Pin 6 – RS485 RXDA**
Yellow	**Pin 7 – RS485 RXDB**

	PIN	DEFINE	
RS-232	2	RXD	
	3	TXD	
	5	GND	
RS-485	6	RXDA	R+
	7	RXDB	R-
	8	TXDZ	T+
	9	TXDY	T-

Keyboard Configuration
Select the right serial channel
Keyboard Setting: DEVICE → DVR
PROTOCOL → HUNT
BAUD → 9600 BPs

Command Menu
The LCD display show a 2 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

The CAMERA command recall a full screen image of the actual camera.

Command Page 1/2

Command	Description	Parameter
RW	Rewind	-
FIELDRW	Field Rewind	-
FASTRW	Fast Rewind	-
SCREEN	Select Screen Camera Formats	-
FIELDFW	Field Forward	-
FASTFW	Fast Forward	-
PLAY	Playback	-
STOP	Stop Playback	-

Command Page 2/2

Command	Description	Parameter
SEL	Select Screen Format	-
AUTO	Start Auto Sequence	-
MENU-ENT	Menu	-
CAMERA	Recall Full Screen Selected Camera	-

JVC

Reference Documents

JVC VR509E User Manual
JVC Operation Command Protocol VR509E

Hardware Connection

To connect the JVC DVR with the keyboard is necessary to use the RS232 serial port. To connect the devices you can use the RS232 Serial Cable (Mouse Extender Cable) supplied with the keyboard or build or buy a new one if the lentgh is not enought. If you want to build the connection cable follow the table.

Keyboard RS232 COM Port	JVC DVR RS232 terminals
Pin 2 - TX	**Pin 3 - RXD**
Pin3 - RX	**Pin 2 - TXD**
Pin 5 - GND	**Pin 5 - GND**

Remember that with the RS232 is not possible to make distances over 15-25m. If you need a long distance connection you must use an external interface (ex. RS232-RS485 converter). Remember also that only the serial channel CH2 of the keyboard support the RS232 connection.

Keyboard Configuration

Select the CH2 serial channel
Keyboard Setting: DEVICE → DVR
PROTOCOL →JVC
BAUD → 9600 BPs

Command Menu

The LCD display show a 3 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”. The arrow buttons in the front panel are replaced by the joystick.

The CAMERA command recall a full screen image of the actual camera after a SEQ or SCREEN commands.

Command Page 1/3

Command	Description	Parameter
PLAY	Playback	-
STOP	Activate Stop Mode	-
REV	Reverse Playback	-
PBSTOP	Stop Playback	-
FF	Forward	-
RW	Rewind	-
REC	Recording Mode	-
STILL	Activate Still Mode	-

Command Page 2/3

Command	Description	Parameter
EVENTFWD	Event Skip Forward	1-99
EVENTREV	Event Skip Reverse	1-99
SKIPFWD	Skip Forward	1-99
SKIPREV	Skip Reverse	1-99
ALARMFWD	Alarm Forward	1-99
ALARMREV	Alarm Reverse	1-99
CAMERA	Recall Full Screen Selected Camera	-
SEQ	Monitor Output Screen Mode	-

Command Page 3/3

Command	Description	Parameter
TIMERON	Timer Mode ON	-
TIMEROFF	Timer Mode OFF	-
SCREEN	Screen	-
MENU	Menu	-
ENTER	Enter	-
CANCEL	Cancel	-
ESC	Esc	-

GANZ

Reference Documents

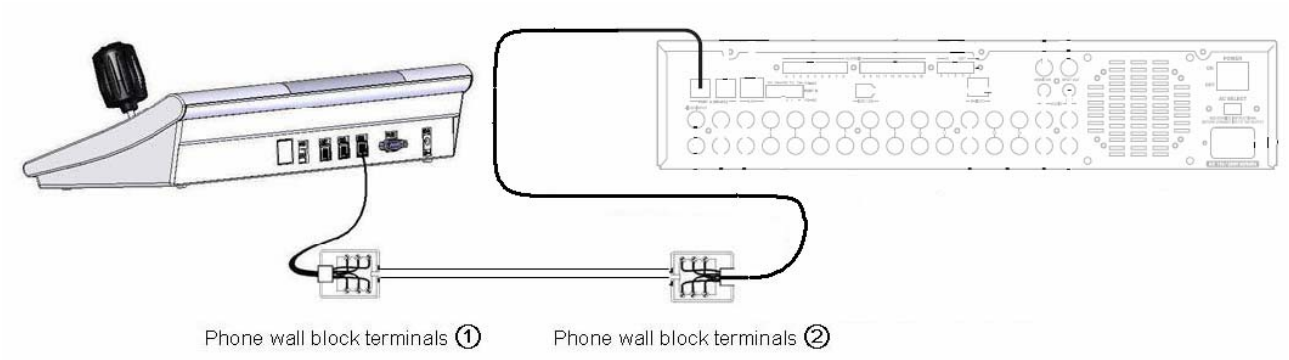
16ch DIGITAL VIDEO RECORDER ZR-DH1621NP, 9ch DIGITAL VIDEO RECORDER ZR-DH921NP,istruction manual.(list istruction and configuration)
Quick guide 16ch DIGITAL VIDEO RECORDER ZR-DH1621NP. (list connections to DVR)
Manual DVR GANZ client.(list command)

Important note about the DVR firmware version

The DVRs GANZ ZR-DH921NP and ZR-DH1621NP must have a firmware version 1.48 or earlier.

Hardware connection

To connect the keyboard to the DVR unit you must use two phone wall teminals blocks and one phone cable R12 6/6 supplied with the keyboard and the phone cable supplied with the DVR (see the following picture):



Connect the PortA of the DVR to the phone wall terminal block ② by using the phone cable supplied with the DVR.
Connect the desired serial line connector of the keyboard with the phone wall terminal block ① by using the phone cable RJ12 6/6 supplied with the keyboard.

Connect the phone wall terminal block ② to the phone wall terminal block ① by using two wires (see the following table).

Phone Wall Block Terminals ①	Phone Wall Block Terminals ②
White	Black
Yellow	Red

Keyboard Configuration

Select the right serial channel

Keyboard Setting: DEVICE → DVR
PROTOCOL → GANZ
BAUD → 9600 BPs

Command Menu

The LCD display show a 4 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.
The factory menu command labels are copy of those presents on the DVR front panel.
Some advanced commands are not present in the front panel; this commands are indicated with an asterisk in the Parameter column.
The arrow buttons in the front panel are replaced by the joystick.
The CAMERA command recall a full screen image of the actual camera after a DISPLAY command.

The DVR activate automatically the recording at the power on; the recording is always active; is not possible to disable the recording from remote or from keyboard.

The PTZ command active a speed dome connected at the PortB. The speed dome must be connected only at the PortB and the DVR properly configurated.

Command Page 1/4

Command	Description	Parameter
PLAY	Active Play/Arrow right	-
R.PLAY	Active reverse play DVR/Arrow left	-
PAUSE	Pause	-
STOP	Stop	-
SEARCH	Search	-
FF	Fast forward to the end Record/Arrow up	-
REW	Rewind to the top Record/Arrow down	-
SPOT	Function spot	-

Command Page 2/4

Command	Description	Parameter
DISPLAY	Setting multiscreen	-
USER	Function user	-
FULL ZOOM	Active display in full zoom	-
PANORAMA	Function panorama	-
CAMERA	Recall Camera at full screen	-
PIP	Function Picture in picture	-
MENU-ENT	Enter menù	*
MENU	Menu or esc menù	-

Command Page 3/4

Command	Description	Parameter
PTZ	Function PTZ	-
AUTO	Active Auto pan camera PTZ	-
TOUR	Command Tour preset camera PTZ	1-4
PRESET	Active Preset menù camera PTZ	-
S PRESET	Function Set preset camera PTZ	0-99 *
G PRESET	Function Go preset camera PTZ	0-99 *
AUX	Active/disabile AUX camera PTZ	0-255 *
A FOCUS	Function auto focus camera PTZ	*

Command Page 4/4

Command	Description	Parameter
IRIS+	Iris open camera PTZ	-
IRIS-	Iris close camera PTZ	-

(*) Key not present in the DVR front panel

MATRIX

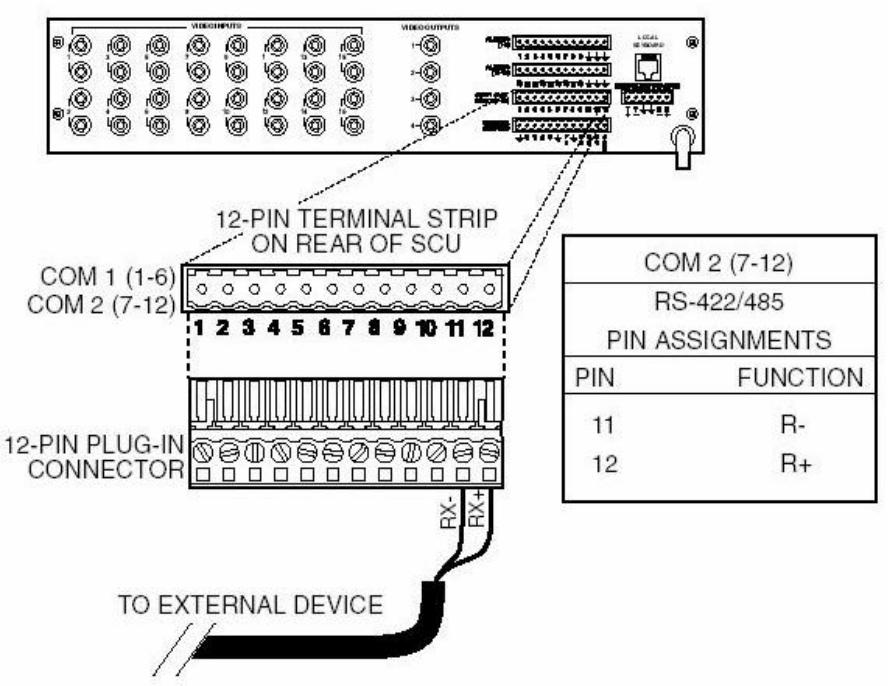
PELCO ASCII

Reference Documents

Pelco CM6700 User Manual
Pelco ASCII Protocol Manual Version 1 Revision 1 August 22, 2003

Hardware Connection

Phone Wall Block Terminals	PELCO MATRIX
White	Pin 12 R+
Yellow	Pin 11 R-



Keyboard Configuration

Select the right serial channel
Keyboard Setting: DEVICE → MATRIX
PROTOCOL → PELCO ASCII
BAUD → 1200BPs (default setting)

Command Menu

The LCD display show a 2 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

The SETCAMERA command recall a full screen image of the actual camera after a sequence command.

Command Page 1/2

Command	Description	Parameter
SEQFWD	Start Sequence Forward	1-99
SEQBCK	Start Sequence Backward	1-99
HOLD	Hold Sequence	-
ACK	ACK Key	-
SETCAMERA	Recall Selected Camera	-
NXTCAMERA	Next Enabled Camera	-
PRVCAMERA	Previous Enabled Camera	-
MONITOR	Select Monitor	1-255

Command Page 2/2

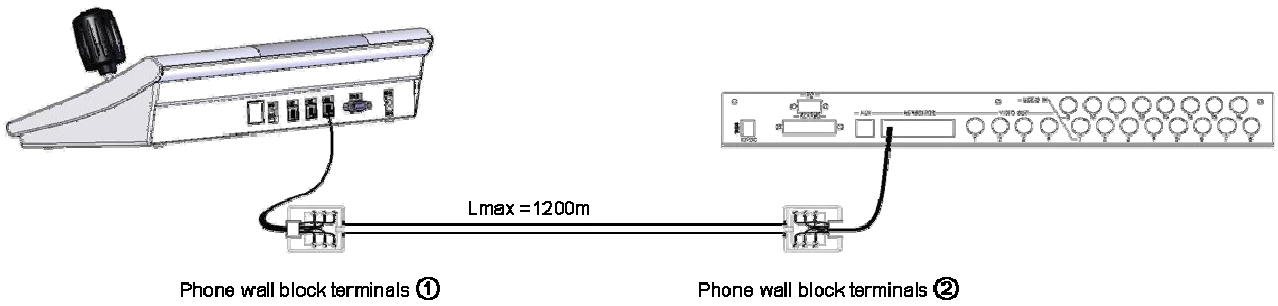
Command	Description	Parameter
PROGRAM	Program	-
PASSWORD	Password window	7 digits + Ⓔ
ACK	ACK Key	-
AUXON	Auxiliary ON	1-99
AUXOFF	Auxiliary OFF	1-99
MACRON	Macro ON	1-99
MACROFF	Macro OFF	1-99

ENEO

Reference Documents
Eneo EKR-8/4, EKR-16/4 User Manual

Hardware Connection

TSK1 Keyboard Phone Wall Block Terminals ①	ENEO MATRIX Phone Wall Block Terminals ②
White	Blue
Yellow	Black



If you have a short distance (< 1.5mt) between the keyboard and the matrix unit, you can connect directly the devices by using the supplied Phone Cable RJ12 6P/6C

Keyboard Configuration
Select the right serial channel
Keyboard Setting: DEVICE → MATRIX
PROTOCOL → ENEO
BAUD → 38400 BPs (default setting)

Command Menu
The LCD display show a 2 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”.

The SETCAMERA command recall a full screen image of the actual camera after a SEQ command.

Command Page 1/2

Command	Description	Parameter
SETCAMERA	Recall Selected Camera	-
NXTCAMERA	Next Enabled Camera	-
PRVCAMERA	Previous Enabled Camera	-
PROGRAM	OSM Programming Mode	* See Note
MONITOR	Select Active Monitor	1-4
SEQ	Start Auto Switching Mode	-

(*) Note - **PROGRAM Command Subpage**

Command
INC
DEC
ENTER
CLEAR
SEQ

Press © to exit from the PROGRAM Subpage.

Command Page 2/2

Command	Description	Parameter
APAN+	Auto Pan ON	-
APAN-	Auto Pan OFF	-
SPRESET	Set Preset	1-8
GPRESET	Go to Preset	1-8
AUX	Auxiliary	1-4
IRIS+	Iris Open	-
IRIS-	Iris Close	-

MULTIPLEXER

GE

Reference Documents
GE DVMRe Triplex User Manual

Hardware Connection
To connect the GE multiplexer with the keyboard is necessary to use the RS232 serial port. Make a three wires connection following this scheme:

Keyboard RS232 COM Port	GE Multiplexer RS-232/1
Pin 2 - TX	Pin 2 - RX
Pin3 - RX	Pin 3 - TX
Pin 5 - GND	Pin 5 - GND

Remember that with the RS232 is not possible to make distances over 15-25m. If you need a long distance connection you must use an external interface (ex. RS232-RS485 converter). Remember also that only the serial channel CH2 of the keyboard support the RS232 connection.

Keyboard Configuration
Select the CH2 serial channel.
Keyboard Setting: DEVICE → MUX
PROTOCOL → GE-MUX232
BAUD → see the GE Multiplexer User Manual

Command Menu
The LCD display show a 4 pages menu.
Use the Left Navigation Key or the Right Navigation Key from the keypad to select the wished menu.

All the command labels described in this manual are referred at the factory version. The user can modify this labels by using the “Keyboard Configuration Program”. The arrow buttons in the front panel are replaced by the joystick.

To enter in the configuration Menu of the MULTIPLEXER follow this procedure:
❶ Press the MENU-ENT key.
❷ A password request window will appear on the LCD display.
❸ Enter the four (4) digits password by using the numeric keypad.
❹ Press Ⓔ.
❺ Press ENTER to confirm.
❻ The MULTIPLEXER will enter in the configuration menu (see the video monitor).

If the MULTIPLEXER configuration on screen menu will request to press MENU or ENTER keys you must use the correspondent keys on the keyboard.
If a password is requested press the PASSWORD key on the keyboard and follow the above procedure from the ❸ point.

Command Page 1/4

Command	Description	Parameter
ALARMSEQ	Alarm Sequence	-
ALARMCAM	Alarm & Camera	1-16
ALMENU	Alarm Menu	-
SEARCH	Search	-
MENU-ENT	Menu Enter Window	4 digits + Ⓔ
MENU	Menu	-
ENTER	Enter	-
PASSWORD	Password window	4 digits + Ⓔ

Command Page 2/4

Command	Description	Parameter
FRAME+	Frame Forward	-
FRAME-	Frame Backward	-
MON-A	Monitor A Selection	-
MON-B	Monitor B Selection	-
PLAY	Playback	-
STOP	Stop Playback	-
SEQ	Sequence	-
FREEZE	Freeze Mode	-

Command Page 3/4

Command	Description	Parameter
SCREEN2	Multiscreen selection x2	-
SCREEN4	Multiscreen selection x4	-
SCREEN6	Multiscreen selection x5	-
SCREEN7	Multiscreen selection x7	-
SCREEN9	Multiscreen selection x9	-
SCREEN10	Multiscreen selection x10	-
SCREEN13	Multiscreen selection x13	-
SCREEN16	Multiscreen selection x16	-

Command Page 4/4

Command	Description	Parameter
RECORD	Recording	-
FWD	Playback Forward	-
BCK	Playback Backward	-
STOP	Stop	-
MACRO	Macro	-
CAMERA	Recall Selected Camera	-

SPECIFICATION

General	
Keyboard Power Supply	12VDC
Power Consumption	15W
Ambient Operating Temperature	+5°C/ +40°C
Dimensions (WxHxD)	365x113x160 mm
Net Weight	1060 g
External Power Supply Unit	
Input Voltage	100-240VAC 47-63Hz
Output Voltage	12VDC
Max Current	1.25A
Display	
LCD Graphic Display	128x128 dots Blue Screen
LCD BackLit	White LEDs
Communication Ports	
RS485	3 Serial Lines (CH1-CH2-CH3) RJ12 Connectors
RS232C	1 Serial Line (COM) Female DB9 Connector
Data Entry	
Joystick	Proportional 3 Axis + 2 Top Mount Pushbuttons
Jog Shuttle	
Numeric Keypad	12 Keys
Multi-function keypad	10 keys
Buzzer	Configurable
Compliance	
EN 55022:1998 + A1:2000 + A2:2003 + EC:2005 Class B	
EN 50130-4:1995 + A1:1998 + A2:2003	
EN 60950-1:2001	
Directive 2002/95/CE (ROHS)